

**Doc 8400**



**Procedures for  
Air Navigation Services**

# **ICAO Abbreviations and Codes**

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This edition incorporates all amendments approved by the Council prior to 24 July 2010 and supersedes, on 18 November 2010, all previous editions of PANS-ABC (Doc 8400).

**Eighth Edition — 2010**

**International Civil Aviation Organization**



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## AMENDMENTS

Amendments are announced in the supplements to the *Catalogue of ICAO Publications*; the Catalogue and its supplements are available on the ICAO website at [www.icao.int](http://www.icao.int). The space below is provided to keep a record of such amendments.

## RECORD OF AMENDMENTS AND CORRIGENDA

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# FOREWORD

## 1. Introduction

This document contains abbreviations and codes approved by the Council of ICAO for worldwide use in the international aeronautical telecommunication service and in aeronautical information documents, as appropriate, uniform abbreviated phraseology for use in pre-flight information bulletins and ATS data link communications, with the status of Procedures for Air Navigation Services (in abbreviated form the PANS-ABC).

This document is the outgrowth of study by the Air Navigation Commission in consultation with States in the matter of controlling and coordinating abbreviations and codes. It brings together all abbreviations and codes for use in aircraft operations with the following exceptions:

- a) *Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services* promulgated in Doc 8585.
- b) Data designators and geographical designators for meteorological bulletins given in the *Manual of Aeronautical Meteorological Practice* (Doc 8896).
- c) Aeronautical meteorological codes given in the *Manual of Aeronautical Meteorological Practice*.
- d) Additional abbreviations for restricted use in aeronautical information services (AIS) documents given in the *Aeronautical Information Services Manual* (Doc 8126).
- e) *Location Indicators* given in Doc 7910.
- f) *Aircraft Type Designators* given in Doc 8643.

Table A shows the origin of each edition of the PANS-ABC issued since 1964 and subsequent amendments thereto, together with a list of the principal subjects involved, the dates on which the amendments were approved by the Council and the dates on which they became applicable.

## 2. Principles for formulation of abbreviations

The principles applied in the formulation of ICAO abbreviations are:

- a) that allocation of more than one signification to a single abbreviation should be avoided except where it can be reasonably determined that no instances of misinterpretation would arise;
- b) that allocation of more than one abbreviation to the same signification should be avoided even though a different use is prescribed;
- c) that abbreviations should make use of the root word or words and should be derived from words common to the working languages except that where it is impracticable to apply this principle to best advantage, the abbreviation should follow the English text;
- d) that the use of a singular or plural form for the signification of an abbreviation should be selected on the basis of the more common use;

- e) that an abbreviation may represent grammatical variants of the basic signification where such application can be made without risk of confusion and the desired grammatical form can be determined from the context of the message.

With respect to the latter principle, several variants are given for a number of abbreviations where it might not be obvious that the variant is appropriate or acceptable.

### **3. Specifications governing the use of abbreviations**

Specifications governing the use of abbreviations and codes are contained in the following ICAO Annexes and PANS:

- a) use of abbreviations in the aeronautical information service: 3.6.4 of Annex 15;
- b) use of the NOTAM Code: 5.2 of Annex 15;
- c) use of abbreviations and codes in the international aeronautical telecommunications service: 3.7 of Annex 10, Volume II;
- d) use of abbreviations on aeronautical charts: 2.3.3 and 2.9 of Annex 4;
- e) use of abbreviations in plain language meteorological messages: Chapters 3, 4, 6 and 7, Appendices 1, 2 and 5 and Attachment A of Annex 3;
- f) use of abbreviations in air-reports: 4.12 of Chapter 4 and Appendix 1 of PANS-ATM (Doc 4444);
- g) use of abbreviations and designators in flight plans and other air traffic services messages: Chapters 11 and 16 and Appendices 2, 3, 5 and 6 of PANS-ATM (Doc 4444).

### **4. Status**

The Procedures for Air Navigation Services (PANS) do not have the same status as the Standards and Recommended Practices. While the latter are adopted by Council in pursuance of Article 37 of the Convention on International Civil Aviation, subject to the full procedure of Article 90, the PANS are approved by the President of the Council on behalf of the Council and recommended to Contracting States for worldwide application.

### **5. Implementation**

The implementation of ICAO Standards, Recommended Practices and Procedures is the responsibility of Contracting States; they are applied in actual operations only after, and in so far as States have enforced them. However, with a view to facilitating their processing towards implementation by States, this document has been prepared in a manner which will permit direct use by operational personnel.

### **6. Notification of Differences**

The PANS do not carry the status afforded to Standards adopted by the Council as Annexes to the Convention and, therefore, do not come within the obligation imposed by Article 38 of the Convention to notify differences in the event of non-implementation.

The attention of States is, however, drawn to the provision in Annex 15 related to the publication in Aeronautical Information Publications of a list of abbreviations and their respective significations used by the State in its Aeronautical Information Publications and in the dissemination of aeronautical information. Differences from ICAO abbreviations or their significations should be identified.

## 7. Editorial presentation

For encoding purposes the abbreviations given in this document are divided among a “general” and several specialized categories. For the convenience of the user, there is some duplication among these categories. Nevertheless, it may be necessary to draw on the “general” category of abbreviations when composing messages using one of the specialized categories.

Certain Q Code signals which through constant use have attained plain language status have been placed with their plain language significations in the portion of this document which contains the “general” category abbreviations.

Throughout the document, decode material is printed on white paper, encode material on green paper.

Any errors, omissions or discrepancies should be brought to the attention of the Secretary General of ICAO, 999 University Street, Montréal, Quebec, Canada H3C 5H7.

**Table A. Amendments to the PANS-ABC**

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Approved Applicable</i>
1st Edition (1964)	Air Navigation Commission	Study on the control and coordination of abbreviations and codes.	18 March 1964 1 November 1964
Amendment 1	MET/OPS Meeting (1964); Fifth Meeting of the Panel of Teletypewriter Specialists (1963)	Editorial and consequential amendments emanating from Amendment 44 to Annex 10, Amendment 9 to PANS-MET and Amendment 7 to PANS-RAC; addition and modification of meteorological abbreviations; amendment of abbreviations used on the AFTN.	7 June 1965 10 March 1966
Amendment 2	ICAO Secretariat	Consequential and editorial changes to the Foreword emanating from Air Navigation Commission and Council action on various regulatory and service documents.	25 August 1966
2nd Edition (1967) (includes Amendment 3)	AIS/MAP Divisional Meeting (1966)	Various changes to abbreviations and codes to reflect current operational requirements and practices.	13 June 1967 8 February 1968
Amendment 4	Air Navigation Commission	Consequential changes to abbreviations used for air traffic purposes emanating from Amendment 2 to the Eighth Edition of Doc 4444 (PANS-RAC).	4 April 1968 4 April 1968
Amendment 5	Air Navigation Commission	Consequential changes to abbreviations used for plain language meteorology messages, emanating from Amendment 14 to Doc 7605 (PANS-MET).	28 June 1968 9 January 1969
Amendment 6	Air Navigation Commission	Changes arising from Assembly Resolution A16-19 and Amendment 54 to Annex 3.	23 January 1969 18 September 1969

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Approved Applicable</i>
3rd Edition (1971) (includes Amendments 7 and 8)	Air Navigation Commission	Study of NOTAM composition resulting in expanded use of abbreviations and codes in NOTAM Class I; changes in abbreviations emanating from revised aeronautical meteorological figure codes introduced by WMO; changes introduced as a result of clarification of air traffic control terms contained in ICAO regulatory documents.	19 March 1971 6 January 1972
Amendment 9	Air Navigation Commission	Consequential changes emanating from Amendment 1 to the Tenth Edition of Doc 4444 (PANS-RAC).	24 March 1972 7 December 1972
Amendment 10	Air Navigation Commission; Third Meeting of the Obstacle Clearance Panel (1971)	Consequential amendments to abbreviations and their significations (QFE and QNH); changes to meteorological abbreviations introduced by WMO.	21 March 1973 16 August 1973
Amendment 11	Air Navigation Commission; Seventh Air Navigation Conference (1972)	Addition of abbreviations RNAV and STAR; deletion of abbreviation SIA.	29 May 1973 23 May 1974
Amendment 12	Air Navigation Commission	Inclusion of additional abbreviations for use in the NOTAM Code.	11 December 1974 9 October 1975
Amendment 13	Air Navigation Commission; Eighth Air Navigation Conference (1974)	Additions, deletions and changes in significations of abbreviations mainly emanating from amendments to Annex 3.	8 December 1975 12 August 1976
Amendment 14	Air Navigation Commission; Ninth Air Navigation Conference (1976)	Addition of abbreviations COP, INOP, MRP, RPS and WPT; change in signification of abbreviation ACP as a consequence of Amendment 30 to Annex 14.	9 December 1977 10 August 1978
Amendment 15	Air Navigation Commission	Additions and changes in signification of abbreviations.	26 February 1979 29 November 1979
Amendment 16	Air Navigation Commission	Additions, deletions and changes in signification of abbreviations emanating from a study of abbreviations in common use in States' aeronautical information publications.	11 March 1981 26 November 1981
Amendment 17	Air Navigation Commission	Extensive amendment of abbreviations and codes emanating from a proposal submitted by the United Kingdom.	14 December 1981 9 June 1983
Amendment 18	Air Navigation Commission	Extensive addition of abbreviations and codes consequential to a study of the revision of the NOTAM Code; addition of abbreviations used in Doc 8168 (PANS-OPS).	11 June 1982 9 June 1983
Amendment 19	Air Navigation Commission; Third Meeting of the ATS Data Acquisition, Processing and Transfer (ADAPT) Panel (1981)	Consequential changes emanating from Amendments 64 and 65 to Annex 3, Amendment 14 to Annex 5, Recommendations 1/5 and 3/1 of ADAPT/3, and a new ITU method of designating radio emissions.	15 March 1985 21 November 1985



<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Approved Applicable</i>
4th Edition (1989) (includes Amendment 20)	Air Navigation Commission	Additions, changes and deletions of abbreviations and codes to reflect the current operational requirements and practices; introduction of new sections for abbreviations used in radiotelephony in a spoken form (Decode, Encode) and for the Procedure signals used in aeronautical telecommunication service (Decode); consequential and editorial amendments.	24 February 1989 16 November 1989
Amendment 21	Air Navigation Commission; Communications/ Meteorology/ Operations (COM/MET/OPS) Divisional Meeting (1990)	Additions, changes and deletions of abbreviations and codes to reflect the current operational requirements and practices; consequential amendments arising from Amendment 69 to Annex 3, Amendment 13 to Annex 5, Amendment 39 to Annex 14, Amendment 27 to Annex 15 and Amendment 13 to PANS-OPS.	2 December 1992 1 July 1993
Amendment 22	Air Navigation Commission	Consequential changes emanating from: Amendment 70 to Annex 3 Amendment 69 to Annex 10 Amendment 15 to Annex 12 Amendment 28 to Annex 15 Amendment 7 to PANS-OPS, Volume I.	30 November 1995 7 November 1996
5th Edition (1999) (includes Amendment 23)	AIS/MAP Divisional Meeting (1998); Air Navigation Commission	Extensive amendments emanating from the AIS/MAP Divisional Meeting (1998) and the Air Navigation Commission, including additions, changes and deletions of abbreviations; addition and deletion of abbreviations and terms transmitted as spoken words; addition of abbreviations and terms transmitted using the individual letters in non-phonetic form; addition of a NOTAM Code for controller-pilot data link communications and automatic dependent surveillance; deletion of Procedure Signals for use in the International Aeronautical Telecommunication Service (Decode and Encode); deletion of the Q-Code (Preface, Decode and Encode).	26 February 1999 4 November 1999
Amendment 24	Air Navigation Commission	Consequential changes emanating from Amendment 71 to Annex 3.	9 June 2000 2 November 2000
Amendment 25	Air Navigation Commission	Consequential changes emanating from Amendment 72 to Annex 3.	10 July 2002 28 November 2002
Amendment 26	Conclusion 40/51 b) of the European Air Navigation Planning Group (EANPG) and the Secretariat	Consequential changes emanating from Amendment 32 to Annex 15.	23 July 2003 27 November 2003
Sixth Edition (2004) (includes Amendment 27)	Global Navigation Satellite System Panel (GNSSP/4); MET Divisional Meeting (2002); Air Navigation Commission	New abbreviations and updated specifications for the NOTAM Code related to GNSS; and consequential changes emanating from Amendment 73 to Annex 3, Amendment 53 to Annex 4 and Amendments 13 and 12 to the PANS-OPS, Volumes I and II, respectively.	6 May 2004 25 November 2004
Seventh Edition (2007) (includes Amendment 28)	Fourteenth Meeting of the Obstacle Clearance Panel (OCP/14); Air Navigation Commission; and the Secretariat	New abbreviations related to updated provisions in the PANS-OPS; the use of ADS-B, ADS-C and RCP in the provision of air traffic services; consequential changes emanating from Amendment 74 to Annex 3 and Amendment 34 to Annex 15; and editorial amendments.	3 August 2007 22 November 2007

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Approved Applicable</i>
Amendment 29	First working group of the whole meeting of the Instrument Flight Procedures Panel (IFPP/WG/WHL/1); Secretariat, with the assistance of the Required Navigation Performance and Special Operational Requirements Study Group (RNPSORSG), concerning PBN terminology	New abbreviations related to updated provisions in the PANS-OPS with regard to the performance-based navigation (PBN) concept and ground-based augmentation system (GBAS) landing system.	7 October 2008 20 November 2008
Eighth Edition (2010) (includes Amendment 30)	Ninth meeting of the Operations Panel Working Group of the Whole (OPSP/WG-WHL/9); sixth meeting of the Operations Panel (OPSP/6); and the Secretariat with the assistance of the Aeronautical Information Management Study Group (AIS-AIMSG/1), International Airways Volcano Watch Operations Group (IAVWOPSG/4), Meteorological Warnings Study Group (METWSG/2), and Aerodrome Meteorological Observation and Forecast Study Group (AMOFSG/7).	New abbreviations related to cockpit displays, unmanned aircraft, volcanic ash information provided by volcanic ash advisory centres (VAAC), the elimination of routine voice reports, completion of tropical cyclone advisories in graphical format and the use of data link for meteorological information, aerodrome observations and forecasts. Update of the NOTAM code.	23 July 2010 18 November 2010

## ABBREVIATIONS

### DECODE

<b>A</b>			
A	Amber	ADR	Advisory route
AAA	(or AAB, AAC . . . etc., in sequence) Amended meteorological message (message type designator)	ADS*	The address (when this abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI ADS) (to be used in AFS as a procedure signal)
A/A	Air-to-air	ADS-B‡	Automatic dependent surveillance — broadcast
AAD	Assigned altitude deviation	ADS-C‡	Automatic dependent surveillance — contract
AAIM	Aircraft autonomous integrity monitoring	ADSU	Automatic dependent surveillance unit
AAL	Above aerodrome level	ADVS	Advisory service
ABI	Advance boundary information	ADZ	Advise
ABM	Abeam	AES	Aircraft earth station
ABN	Aerodrome beacon	AFIL	Flight plan filed in the air
ABT	About	AFIS	Aerodrome flight information service
ABV	Above	AFM	Yes or affirm or affirmative or that is correct
AC	Altocumulus	AFS	Aeronautical fixed service
ACARS†	(to be pronounced "AY-CARS") Aircraft communication addressing and reporting system	AFT . . .	After . . . (time or place)
ACAS†	Airborne collision avoidance system	AFTN‡	Aeronautical fixed telecommunication network
ACC‡	Area control centre or area control	A/G	Air-to-ground
ACCID	Notification of an aircraft accident	AGA	Aerodromes, air routes and ground aids
ACFT	Aircraft	AGL	Above ground level
ACK	Acknowledge	AGN	Again
ACL	Altimeter check location	AIC	Aeronautical information circular
ACN	Aircraft classification number	AIDC	Air traffic services interfacility data communications
ACP	Acceptance (message type designator)	AIP	Aeronautical information publication
ACPT	Accept or accepted	AIRAC	Aeronautical information regulation and control
ACT	Active or activated or activity	AIREP†	Air-report
AD	Aerodrome	AIRMET†	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations
ADA	Advisory area	AIS	Aeronautical information services
ADC	Aerodrome chart	ALA	Alighting area
ADDN	Addition or additional		
ADF‡	Automatic direction-finding equipment		
ADIZ†	(to be pronounced "AY-DIZ") Air defence identification zone		
ADJ	Adjacent		
ADO	Aerodrome office (specify service)		

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

\* Signal is also available for use in communicating with stations of the maritime mobile service.

# Signal for use in the teletypewriter service only.

ALERFA†	Alert phase	ARS	Special air-report ( <i>message type designator</i> )
ALR	Alerting ( <i>message type designator</i> )	ARST	Arresting ( <i>specify (part of) aircraft arresting equipment</i> )
ALRS	Alerting service	AS	Altostratus
ALS	Approach lighting system	ASC	Ascend to <i>or</i> ascending to
ALT	Altitude	ASDA	Accelerate-stop distance available
ALTN	Alternate <i>or</i> alternating ( <i>light alternates in colour</i> )	ASE	Altimetry system error
ALTN	Alternate ( <i>aerodrome</i> )	ASHTAM	Special series NOTAM notifying, by means of a specific format, change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations
AMA	Area minimum altitude	ASPH	Asphalt
AMD	Amend <i>or</i> amended ( <i>used to indicate amended meteorological message; message type designator</i> )	AT . . .	At ( <i>followed by time at which weather change is forecast to occur</i> )
AMDT	Amendment ( <i>AIP Amendment</i> )	ATA‡	Actual time of arrival
AMS	Aeronautical mobile service	ATC‡	Air traffic control ( <i>in general</i> )
AMSL	Above mean sea level	ATCSMAC. . .	Air traffic control surveillance minimum altitude chart ( <i>followed by name/title</i> )
AMSS	Aeronautical mobile satellite service	ATD‡	Actual time of departure
ANC . . .	Aeronautical chart — 1:500 000 ( <i>followed by name/title</i> )	ATFM	Air traffic flow management
ANCS . . .	Aeronautical navigation chart — small scale ( <i>followed by name/title and scale</i> )	ATIS†	Automatic terminal information service
ANS	Answer	ATM	Air traffic management
AOC . . .	Aerodrome obstacle chart ( <i>followed by type and name/title</i> )	ATN	Aeronautical telecommunication network
AP	Airport	ATP . . .	At . . . ( <i>time or place</i> )
APAPI†	( <i>to be pronounced “AY-PAPI”</i> ) Abbreviated precision approach path indicator	ATS	Air traffic services
APCH	Approach	ATTN	Attention
APDC . . .	Aircraft parking/docking chart ( <i>followed by name/title</i> )	AT-VASIS†	( <i>to be pronounced “AY-TEE-VASIS”</i> ) Abbreviated T visual approach slope indicator system
APN	Apron	ATZ	Aerodrome traffic zone
APP	Approach control office <i>or</i> approach control <i>or</i> approach control service	AUG	August
APR	April	AUTH	Authorized <i>or</i> authorization
APRX	Approximate <i>or</i> approximately	AUW	All up weight
APSG	After passing	AUX	Auxiliary
APV	Approve <i>or</i> approved <i>or</i> approval	AVBL	Available <i>or</i> availability
ARC	Area chart	AVG	Average
ARNG	Arrange	AVGAS†	Aviation gasoline
ARO	Air traffic services reporting office	AWTA	Advise at what time able
ARP	Aerodrome reference point	AWY	Airway
ARP	Air-report ( <i>message type designator</i> )	AZM	Azimuth
ARQ	Automatic error correction		
ARR	Arrival ( <i>message type designator</i> )		
ARR	Arrive <i>or</i> arrival		

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

\* Signal is also available for use in communicating with stations of the maritime mobile service.

# Signal for use in the teletypewriter service only.

<b>B</b>			
B	Blue		
BA	Braking action		
BARO-VNAV†	(to be pronounced “BAA-RO-VEE-NAV”) Barometric vertical navigation	CAVOK†	(to be pronounced “KAV-OH-KAY”) Visibility, cloud and present weather better than prescribed values or conditions
BASE†	Cloud base	CB‡	(to be pronounced “CEE BEE”) Cumulonimbus
BCFG	Fog patches	CC	Cirrocumulus
BCN	Beacon (aeronautical ground light)	CCA	(or CCB, CCC . . . etc., in sequence) Corrected meteorological message (message type designator)
BCST	Broadcast	CD	Candela
BDRY	Boundary	CDN	Coordination (message type designator)
BECMG	Becoming	CF	Change frequency to . . .
BFR	Before	CF	Course to a fix
BKN	Broken	CFM*	Confirm or I confirm (to be used in AFS as a procedure signal)
BL . . .	Blowing (followed by DU = dust, SA = sand or SN = snow)	CGL	Circling guidance light(s)
BLDG	Building	CH	Channel
BLO	Below clouds	CH#	This is a channel-continuity-check of transmission to permit comparison of your record of channel-sequence numbers of messages received on the channel (to be used in AFS as a procedure signal)
BLW . . .	Below . . .		
BOMB	Bombing	CHEM	Chemical
BR	Mist	CHG	Modification (message type designator)
BRF	Short (used to indicate the type of approach desired or required)	CI	Cirrus
BRG	Bearing	CIDIN†	Common ICAO data interchange network
BRKG	Braking	CIT	Near or over large towns
BS	Commercial broadcasting station	CIV	Civil
BTL	Between layers	CK	Check
BTN	Between	CL	Centre line
BUFR	Binary universal form for the representation of meteorological data	CLA	Clear type of ice formation
		CLBR	Calibration
		CLD	Cloud
		CLG	Calling
		CLIMB-OUT	Climb-out area
		CLR	Clear(s) or cleared to . . . or clearance
		CLRD	Runway(s) cleared (used in METAR/SPECI)
		CLSD	Close or closed or closing
		CM	Centimetre
		CMB	Climb to or climbing to
<b>C</b>			
. . . C	Centre (preceded by runway designation number to identify a parallel runway)		
C	Degrees Celsius (Centigrade)		
CA	Course to an altitude		
CAT	Category		
CAT	Clear air turbulence		

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# Signal for use in the teletypewriter service only.

CMPL	Completion <i>or</i> completed <i>or</i> complete	<b>D</b>	
CNL	Cancel <i>or</i> cancelled	D	Downward ( <i>tendency in RVR during previous 10 minutes</i> )
CNL	Flight plan cancellation ( <i>message type designator</i> )	D . . .	Danger area ( <i>followed by identification</i> )
CNS	Communications, navigation and surveillance	DA	Decision altitude
COM	Communications	D-ATIS†	( <i>to be pronounced "DEE-ATIS"</i> ) Data link automatic terminal information service
CONC	Concrete	DCD	Double channel duplex
COND	Condition	DCKG	Docking
CONS	Continuous	DCP	Datum crossing point
CONST	Construction <i>or</i> constructed	DCPC	Direct controller-pilot communications
CONT	Continue(s) <i>or</i> continued	DCS	Double channel simplex
COOR	Coordinate <i>or</i> coordination	DCT	Direct ( <i>in relation to flight plan clearances and type of approach</i> )
COORD	Coordinates	DE*	From ( <i>used to precede the call sign of the calling station</i> ) ( <i>to be used in AFS as a procedure signal</i> )
COP	Change-over point	DEC	December
COR	Correct <i>or</i> correction <i>or</i> corrected ( <i>used to indicate corrected meteorological message; message type designator</i> )	DEG	Degrees
COT	At the coast	DEP	Depart <i>or</i> departure
COV	Cover <i>or</i> covered <i>or</i> covering	DEP	Departure ( <i>message type designator</i> )
CPDLC‡	Controller-pilot data link communications	DEPO	Deposition
CPL	Current flight plan ( <i>message type designator</i> )	DER	Departure end of the runway
CRC	Cyclic redundancy check	DES	Descend to <i>or</i> descending to
CRM	Collision risk model	DEST	Destination
CRZ	Cruise	DETRESFA†	Distress phase
CS	Call sign	DEV	Deviation <i>or</i> deviating
CS	Cirrostratus	DF	Direction finding
CTA	Control area	DFDR	Digital flight data recorder
CTAM	Climb to and maintain	DFTI	Distance from touchdown indicator
CTC	Contact	DH	Decision height
CTL	Control	DIF	Diffuse
CTN	Caution	DIST	Distance
CTR	Control zone	DIV	Divert <i>or</i> diverting
CU	Cumulus	DLA	Delay <i>or</i> delayed
CUF	Cumuliform	DLA	Delay ( <i>message type designator</i> )
CUST	Customs	DLIC	Data link initiation capability
CVR	Cockpit voice recorder	DLY	Daily
CW	Continuous wave	DME‡	Distance measuring equipment
CWY	Clearway	DNG	Danger <i>or</i> dangerous
		DOM	Domestic
		DP	Dew point temperature

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# Signal for use in the teletypewriter service only.

DPT	Depth	EMBD	Embedded in a layer <i>(to indicate cumulonimbus embedded in layers of other clouds)</i>
DR	Dead reckoning	EMERG	Emergency
DR . . .	Low drifting <i>(followed by DU = dust, SA = sand or SN = snow)</i>	END	Stop-end <i>(related to RVR)</i>
DRG	During	ENE	East-north-east
DS	Duststorm	ENG	Engine
DSB	Double sideband	ENR	En route
DTAM	Descend to and maintain	ENRC . . .	Enroute chart <i>(followed by name/title)</i>
DTG	Date-time group	EOBT	Estimated off-block time
DTHR	Displaced runway threshold	EQPT	Equipment
DTRT	Deteriorate <i>or</i> deteriorating	ER*	Here . . . <i>or</i> herewith
DTW	Dual tandem wheels	ESE	East-south-east
DU	Dust	EST	Estimate <i>or</i> estimated <i>or</i> estimation <i>(message type designator)</i>
DUC	Dense upper cloud	ETA*‡	Estimated time of arrival <i>or</i> estimating arrival
DUPE#	This is a duplicate message <i>(to be used in AFS as a procedure signal)</i>	ETD‡	Estimated time of departure <i>or</i> estimating departure
DUR	Duration	ETO	Estimated time over significant point
D-VOLMET	Data link VOLMET	EUR RODEX	European regional OPMET data exchange
DVOR	Doppler VOR	EV	Every
DW	Dual wheels	EVS	Enhanced vision system
DZ	Drizzle	EXC	Except
<b>E</b>		EXER	Exercises <i>or</i> exercising <i>or</i> to exercise
E	East <i>or</i> eastern longitude	EXP	Expect <i>or</i> expected <i>or</i> expecting
EAT	Expected approach time	EXTD	Extend <i>or</i> extending
EB	Eastbound	<b>F</b>	
EDA	Elevation differential area	F	Fixed
EEE#	Error <i>(to be used in AFS as a procedure signal)</i>	FA	Course from a fix to an altitude
EET	Estimated elapsed time	FAC	Facilities
EFC	Expect further clearance	FAF	Final approach fix
EFIS†	<i>(to be pronounced "EE-FIS")</i> Electronic flight instrument system	FAL	Facilitation of international air transport
EGNOS†	<i>(to be pronounced "EGG-NOS")</i> European geostationary navigation overlay service	FAP	Final approach point
EHF	Extremely high frequency [30 000 to 300 000 MHz]	FAS	Final approach segment
ELBA†	Emergency location beacon — aircraft	FATO	Final approach and take-off area
ELEV	Elevation	FAX	Facsimile transmission
ELR	Extra long range	FBL	Light <i>(used to indicate the intensity of weather phenomena, interference or static reports, e.g. FBL RA = light rain)</i>
ELT	Emergency locator transmitter		
EM	Emission		

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# Signal for use in the teletypewriter service only.

FC	Funnel cloud ( <i>tornado or water spout</i> )	FT	Feet ( <i>dimensional unit</i> )
FCST	Forecast	FTE	Flight technical error
FCT	Friction coefficient	FTP	Fictitious threshold point
FDPS	Flight data processing system	FTT	Flight technical tolerance
FEB	February	FU	Smoke
FEW	Few	FZ	Freezing
FG	Fog	FZDZ	Freezing drizzle
FIC	Flight information centre	FZFG	Freezing fog
FIR‡	Flight information region	FZRA	Freezing rain
FIS	Flight information service		
FISA	Automated flight information service	<b>G</b>	
FL	Flight level	G	Green
FLD	Field	G . . .	Variations from the mean wind speed (gusts) ( <i>followed by figures in METAR/SPECI and TAF</i> )
FLG	Flashing	GA	Go ahead, resume sending ( <i>to be used in AFS as a procedure signal</i> )
FLR	Flares	G/A	Ground-to-air
FLT	Flight	G/A/G	Ground-to-air and air-to-ground
FLTCK	Flight check	GAGAN†	GPS and geostationary earth orbit augmented navigation
FLUC	Fluctuating <i>or</i> fluctuation <i>or</i> fluctuated	GAIN	Airspeed or headwind gain
FLW	Follow(s) <i>or</i> following	GAMET	Area forecast for low-level flights
FLY	Fly <i>or</i> flying	GARP	GBAS azimuth reference point
FM	Course from a fix to manual termination ( <i>used in navigation database coding</i> )	GBAS†	( <i>to be pronounced “GEE-BAS”</i> ) Ground-based augmentation system
FM	From	GCA‡	Ground controlled approach system <i>or</i> ground controlled approach
FM . . .	From ( <i>followed by time weather change is forecast to begin</i> )	GEN	General
FMC	Flight management computer	GEO	Geographic <i>or</i> true
FMS‡	Flight management system	GES	Ground earth station
FMU	Flow management unit	GLD	Glider
FNA	Final approach	GLONASS†	( <i>to be pronounced “GLO-NAS”</i> ) Global orbiting navigation satellite system
FPAP	Flight path alignment point	GLS‡	GBAS landing system
FPL	Filed flight plan ( <i>message type designator</i> )	GMC . . .	Ground movement chart ( <i>followed by name/title</i> )
FPM	Feet per minute	GND	Ground
FPR	Flight plan route	GNDCK	Ground check
FR	Fuel remaining	GNSS‡	Global navigation satellite system
FREQ	Frequency	GP	Glide path
FRI	Friday	GPA	Glide path angle
FRNG	Firing		
FRONT†	Front ( <i>relating to weather</i> )		
FROST†	Frost ( <i>used in aerodrome warnings</i> )		
FRQ	Frequent		
FSL	Full stop landing		
FSS	Flight service station		
FST	First		

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# Signal for use in the teletypewriter service only.



GPIP	Glide path intercept point	HVDF	High and very high frequency direction-finding stations ( <i>at the same location</i> )
GPS‡	Global positioning system	HVY	Heavy
GPWS‡	Ground proximity warning system	HVY	Heavy ( <i>used to indicate the intensity of weather phenomena, e.g. HVY RA = heavy rain</i> )
GR	Hail	HX	No specific working hours
GRAS†	( <i>to be pronounced "GRASS"</i> ) Ground-based regional augmentation system	HYR	Higher
GRASS	Grass landing area	HZ	Haze
GRIB	Processed meteorological data in the form of grid point values expressed in binary form ( <i>meteorological code</i> )	HZ	Hertz ( <i>cycle per second</i> )
GRVL	Gravel	<b>I</b>	
GS	Ground speed	IAC . . .	Instrument approach chart ( <i>followed by name/title</i> )
GS	Small hail and/or snow pellets	IAF	Initial approach fix
GUND	Geoid undulation	IAO	In and out of clouds
<b>H</b>		IAP	Instrument approach procedure
H	High pressure area <i>or</i> the centre of high pressure	IAR	Intersection of air routes
H24	Continuous day and night service	IAS	Indicated airspeed
HA	Holding/racetrack to an altitude	IBN	Identification beacon
HAPI	Helicopter approach path indicator	IC	Ice crystals ( <i>very small ice crystals in suspension, also known as diamond dust</i> )
HBN	Hazard beacon	ICE	Icing
HDF	High frequency direction-finding station	ID	Identifier <i>or</i> identify
HDG	Heading	IDENT†	Identification
HEL	Helicopter	IF	Intermediate approach fix
HF‡	High frequency [3 000 to 30 000 kHz]	IFF	Identification friend/foe
HF	Holding/racetrack to a fix	IFR‡	Instrument flight rules
HGT	Height <i>or</i> height above	IGA	International general aviation
HJ	Sunrise to sunset	ILS‡	Instrument landing system
HLDG	Holding	IM	Inner marker
HM	Holding/racetrack to a manual termination	IMC‡	Instrument meteorological conditions
HN	Sunset to sunrise	IMG	Immigration
HO	Service available to meet operational requirements	IMI*	Interrogation sign (question mark) ( <i>to be used in AFS as a procedure signal</i> )
HOL	Holiday	IMPR	Improve <i>or</i> improving
HOSP	Hospital aircraft	IMT	Immediate <i>or</i> immediately
HPA	Hectopascal	INA	Initial approach
HR	Hours	INBD	Inbound
HS	Service available during hours of scheduled operations	INC	In cloud
HUD	Head-up display	INCERFA†	Uncertainty phase
HURCN	Hurricane	INFO†	Information
		INOP	Inoperative

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# Signal for use in the teletypewriter service only.

INP	If not possible
INPR	In progress
INS	Inertial navigation system
INSTL	Install <i>or</i> installed <i>or</i> installation
INSTR	Instrument
INT	Intersection
INTL	International
INTRG	Interrogator
INTRP	Interrupt <i>or</i> interruption <i>or</i> interrupted
INTSF	Intensify <i>or</i> intensifying
INTST	Intensity
IR	Ice on runway
IRS	Inertial reference system
ISA	International standard atmosphere
ISB	Independent sideband
ISOL	Isolated

**J**

JAN	January
JTST	Jet stream
JUL	July
JUN	June

**K**

KG	Kilograms
KHZ	Kilohertz
KIAS	Knots indicated airspeed
KM	Kilometres
KMH	Kilometres per hour
KPA	Kilopascal
KT	Knots
KW	Kilowatts

**L**

... L	Left ( <i>preceded by runway designation number to identify a parallel runway</i> )
L	Locator ( <i>see</i> LM, LO)
L	Low pressure area <i>or</i> the centre of low pressure

LAM	Logical acknowledgement ( <i>message type designator</i> )
LAN	Inland
LAT	Latitude
LCA	Local <i>or</i> locally <i>or</i> location <i>or</i> located
LDA	Landing distance available
LDAH	Landing distance available, helicopter
LDG	Landing
LDI	Landing direction indicator
LEN	Length
LF	Low frequency [30 to 300 kHz]
LGT	Light <i>or</i> lighting
LGTD	Lighted
LIH	Light intensity high
LIL	Light intensity low
LIM	Light intensity medium
LINE	Line ( <i>used in SIGMET</i> )
LM	Locator, middle
LMT	Local mean time
LNAV†	( <i>to be pronounced "EL-NAV"</i> ) Lateral navigation
LNG	Long ( <i>used to indicate the type of approach desired or required</i> )
LO	Locator, outer
LOC	Localizer
LONG	Longitude
LORAN†	LORAN ( <i>long range air navigation system</i> )
LOSS	Airspeed or headwind loss
LPV	Localizer performance with vertical guidance
LR	The last message received by me was . . . ( <i>to be used in AFS as a procedure signal</i> )
LRG	Long range
LS	The last message sent by me was . . . <i>or</i> Last message was . . . ( <i>to be used in AFS as a procedure signal</i> )
LTD	Limited
LTP	Landing threshold point
LTT	Landline teletypewriter
LV	Light and variable ( <i>relating to wind</i> )
LVE	Leave <i>or</i> leaving
LVL	Level
LVP	Low visibility procedures
LYR	Layer <i>or</i> layered

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# Signal for use in the teletypewriter service only.

**M**

... M	Metres ( <i>preceded by figures</i> )
M ...	Mach number ( <i>followed by figures</i> )
M ...	Minimum value of runway visual range ( <i>followed by figures in METAR/SPECI</i> )
MAA	Maximum authorized altitude
MAG	Magnetic
MAHF	Missed approach holding fix
MAINT	Maintenance
MAP	Aeronautical maps and charts
MAPT	Missed approach point
MAR	At sea
MAR	March
MAS	Manual A1 simplex
MATF	Missed approach turning fix
MAX	Maximum
MAY	May
MBST	Microburst
MCA	Minimum crossing altitude
MCW	Modulated continuous wave
MDA	Minimum descent altitude
MDF	Medium frequency direction-finding station
MDH	Minimum descent height
MEA	Minimum en-route altitude
MEHT	Minimum eye height over threshold ( <i>for visual approach slope indicator systems</i> )
MET†	Meteorological <i>or</i> meteorology
METAR†	Aerodrome routine meteorological report ( <i>in meteorological code</i> )
MET REPORT	Local routine meteorological report ( <i>in abbreviated plain language</i> )
MF	Medium frequency [300 to 3 000 kHz]
MHDF	Medium and high frequency direction- finding stations ( <i>at the same location</i> )
MHVDF	Medium, high and very high frequency direction-finding stations ( <i>at the same location</i> )
MHZ	Megahertz
MID	Mid-point ( <i>related to RVR</i> )
MIFG	Shallow fog
MIL	Military

MIN*	Minutes
MIS	Missing . . . ( <i>transmission identification (to be used in AFS as a procedure signal)</i> )
MKR	Marker radio beacon
MLS‡	Microwave landing system
MM	Middle marker
MNM	Minimum
MNPS	Minimum navigation performance specifications
MNT	Monitor <i>or</i> monitoring <i>or</i> monitored
MNTN	Maintain
MOA	Military operating area
MOC	Minimum obstacle clearance ( <i>required</i> )
MOCA	Minimum obstacle clearance altitude
MOD	Moderate ( <i>used to indicate the intensity of weather phenomena, interference or static reports, e.g. MODRA = moderate rain</i> )
MON	Above mountains
MON	Monday
MOPS†	Minimum operational performance standards
MOV	Move <i>or</i> moving <i>or</i> movement
MPS	Metres per second
MRA	Minimum reception altitude
MRG	Medium range
MRP	ATS/MET reporting point
MS	Minus
MSA	Minimum sector altitude
MSAS†	( <i>to be pronounced "EM-SAS"</i> ) Multi- functional transport satellite (MTSAT) satellite-based augmentation system
MSAW	Minimum safe altitude warning
MSG	Message
MSL	Mean sea level
MSR#	Message . . . ( <i>transmission identification has been misrouted (to be used in AFS as a procedure signal)</i> )
MSSR	Monopulse secondary surveillance radar
MT	Mountain
MTU	Metric units
MTW	Mountain waves
MVDF	Medium and very high frequency direction- finding stations ( <i>at the same location</i> )

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# Signal for use in the teletypewriter service only.

MWO	Meteorological watch office	NOTAM†	A notice distributed by means of telecommuni-cation containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations
MX	Mixed type of ice formation ( <i>white and clear</i> )		
<b>N</b>			
N	No distinct tendency ( <i>in RVR during previous 10 minutes</i> )		
N	North <i>or</i> northern latitude	NOV	November
NADP	Noise abatement departure procedure	NOZ‡	Normal operating zone
NASC†	National AIS system centre	NPA	Non-precision approach
NAT	North Atlantic	NR	Number
NAV	Navigation	NRH	No reply heard
NB	Northbound	NS	Nimbostratus
NBFR	Not before	NSC	Nil significant cloud
NC	No change	NSE	Navigation system error
NCD	No cloud detected ( <i>used in automated METAR/SPECI</i> )	NSW	Nil significant weather
NDB‡	Non-directional radio beacon	NTL	National
NDV	No directional variations available ( <i>used in automated METAR/SPECI</i> )	NTZ‡	No transgression zone
NE	North-east	NW	North-west
NEB	North-eastbound	NWB	North-westbound
NEG	No <i>or</i> negative <i>or</i> permission not granted <i>or</i> that is not correct	NXT	Next
NGT	Night	<b>O</b>	
NIL*†	None <i>or</i> I have nothing to send to you	OAC	Oceanic area control centre
NM	Nautical miles	OAS	Obstacle assessment surface
NML	Normal	OBS	Observe <i>or</i> observed <i>or</i> observation
NN	No name, unnamed	OBSC	Obscure <i>or</i> obscured <i>or</i> obscuring
NNE	North-north-east	OBST	Obstacle
NNW	North-north-west	OCA	Obstacle clearance altitude
NO	No (negative) ( <i>to be used in AFS as a procedure signal</i> )	OCA	Oceanic control area
NOF	International NOTAM office	OCC	Occulting ( <i>light</i> )
NOSIG†	No significant change ( <i>used in trend-type landing forecasts</i> )	OCH	Obstacle clearance height
		OCNL	Occasional <i>or</i> occasionally
		OCS	Obstacle clearance surface
		OCT	October
		OFZ	Obstacle free zone
		OGN	Originate ( <i>to be used in AFS as a procedure signal</i> )
		OHD	Overhead
		OIS	Obstacle identification surface
		OK*	We agree <i>or</i> It is correct ( <i>to be used in AFS as a procedure signal</i> )

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# Signal for use in the teletypewriter service only.

OLDI†	On-line data interchange
OM	Outer marker
OPA	Opaque, white type of ice formation
OPC	Control indicated is operational control
OPMET†	Operational meteorological ( <i>information</i> )
OPN	Open <i>or</i> opening <i>or</i> opened
OPR	Operator <i>or</i> operate <i>or</i> operative <i>or</i> operating <i>or</i> operational
OPS†	Operations
O/R	On request
ORD	Order
OSV	Ocean station vessel
OTP	On top
OTS	Organized track system
OUBD	Outbound
OVC	Overcast

**P**

P . . .	Maximum value of wind speed or runway visual range ( <i>followed by figures in METAR/SPECI and TAF</i> )
P . . .	Prohibited area ( <i>followed by identification</i> )
PA	Precision approach
PALS	Precision approach lighting system ( <i>specify category</i> )
PANS	Procedures for air navigation services
PAPI†	Precision approach path indicator
PAR‡	Precision approach radar
PARL	Parallel
PATC . . .	Precision approach terrain chart ( <i>followed by name/title</i> )
PAX	Passenger(s)
PBN	Performance-based navigation
PCD	Proceed <i>or</i> proceeding
PCL	Pilot-controlled lighting
PCN	Pavement classification number
PDC‡	Pre-departure clearance
PDG	Procedure design gradient
PER	Performance
PERM	Permanent
PIB	Pre-flight information bulletin
PJE	Parachute jumping exercise
PL	Ice pellets
PLA	Practice low approach

PLN	Flight plan
PLVL	Present level
PN	Prior notice required
PNR	Point of no return
PO	Dust/sand whirls ( <i>dust devils</i> )
POB	Persons on board
POSS	Possible
PPI	Plan position indicator
PPR	Prior permission required
PPSN	Present position
PRFG	Aerodrome partially covered by fog
PRI	Primary
PRKG	Parking
PROB†	Probability
PROC	Procedure
PROV	Provisional
PRP	Point-in-space reference point
PS	Plus
PSG	Passing
PSN	Position
PSP	Pierced steel plank
PSR‡	Primary surveillance radar
PSYS	Pressure system(s)
PTN	Procedure turn
PTS	Polar track structure
PWR	Power

**Q**

QD	Do you intend to ask me for a series of bearings? <i>or</i> I intend to ask you for a series of bearings ( <i>to be used in radiotelegraphy as a Q Code</i> )
QDM‡	Magnetic heading ( <i>zero wind</i> )
QDR	Magnetic bearing
QFE‡	Atmospheric pressure at aerodrome elevation ( <i>or at runway threshold</i> )
QFU	Magnetic orientation of runway
QGE	What is my distance to your station? <i>or</i> Your distance to my station is ( <i>distance figures and units</i> ) ( <i>to be used in radiotelegraphy as a Q Code</i> )
QJH	Shall I run my test tape/a test sentence? <i>or</i> Run your test tape/a test sentence ( <i>to be used in AFS as a Q Code</i> )

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# Signal for use in the teletypewriter service only.

QNH‡	Altimeter sub-scale setting to obtain elevation when on the ground	RB	Rescue boat
QSP	Will you relay to . . . free of charge? or I will relay to . . . free of charge <i>(to be used in AFS as a Q Code)</i>	RCA	Reach cruising altitude
QTA	Shall I cancel telegram number . . . ? or Cancel telegram number . . . <i>(to be used in AFS as a Q Code)</i>	RCC	Rescue coordination centre
QTE	True bearing	RCF	Radiocommunication failure <i>(message type designator)</i>
QTF	Will you give me the position of my station according to the bearings taken by the D/F stations which you control? or The position of your station according to the bearings taken by the D/F stations that I control was . . . latitude . . . longitude <i>(or other indication of position)</i> , class . . . at . . . hours <i>(to be used in radiotelegraphy as a Q Code)</i>	RCH	Reach or reaching
QUAD	Quadrant	RCL	Runway centre line
QUJ	Will you indicate the TRUE track to reach you? or The TRUE track to reach me is . . . degrees at . . . hours <i>(to be used in radiotelegraphy as a Q Code)</i>	RCLL	Runway centre line light(s)
<b>R</b>		RCLR	Recleared
. . . R	Right <i>(preceded by runway designation number to identify a parallel runway)</i>	RCP‡	Required communication performance
R	Rate of turn	RDH	Reference datum height
R	Red	RDL	Radial
R . . .	Restricted area <i>(followed by identification)</i>	RDO	Radio
R . . .	Runway <i>(followed by figures in METAR/SPECI)</i>	RE	Recent <i>(used to qualify weather phenomena, e.g. RERA = recent rain)</i>
R*	Received <i>(acknowledgement of receipt) (to be used in AFS as a procedure signal)</i>	REC	Receive or receiver
RA	Rain	REDL	Runway edge light(s)
RA	Resolution advisory	REF	Reference to . . . or refer to . . .
RAC	Rules of the air and air traffic services	REG	Registration
RAG	Ragged	RENL	Runway end light(s)
RAG	Runway arresting gear	REP	Report or reporting or reporting point
RAI	Runway alignment indicator	REQ	Request or requested
RAIM†	Receiver autonomous integrity monitoring	RERTE	Re-route
RASC†	Regional AIS system centre	RESA	Runway end safety area
RASS	Remote altimeter setting source	RF	Constant radius arc to a fix
		RG	Range <i>(lights)</i>
		RHC	Right-hand circuit
		RIF	Reclearance in flight
		RIME†	Rime <i>(used in aerodrome warnings)</i>
		RITE	Right <i>(direction of turn)</i>
		RL	Report leaving
		RLA	Relay to
		RLCE	Request level change en route
		RLLS	Runway lead-in lighting system
		RLNA	Request level not available
		RMK	Remark
		RNAV†	<i>(to be pronounced "AR-NAV")</i> Area navigation
		RNG	Radio range
		RNP‡	Required navigation performance
		ROBEX†	Regional OPMET bulletin exchange <i>(scheme)</i>
		ROC	Rate of climb
		ROD	Rate of descent
		RON	Receiving only
		RPDS	Reference path data selector

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# Signal for use in the teletypewriter service only.

RPI‡	Radar position indicator
RPL	Repetitive flight plan
RPLC	Replace <i>or</i> replaced
RPS	Radar position symbol
RPT*	Repeat <i>or</i> I repeat ( <i>to be used in AFS as a procedure signal</i> )
RQ*	Request ( <i>to be used in AFS as a procedure signal</i> )
RQMNTS	Requirements
RQP	Request flight plan ( <i>message type designator</i> )
RQS	Request supplementary flight plan ( <i>message type designator</i> )
RR	Report reaching
RRA	( <i>or RRB, RRC . . . etc., in sequence</i> ) Delayed meteorological message ( <i>message type designator</i> )
RSC	Rescue sub-centre
RSCD	Runway surface condition
RSP	Responder beacon
RSR	En-route surveillance radar
RSS	Root sum square
RTD	Delayed ( <i>used to indicate delayed meteorological message; message type designator</i> )
RTE	Route
RTF	Radiotelephone
RTG	Radiotelegraph
RTHL	Runway threshold light(s)
RTN	Return <i>or</i> returned <i>or</i> returning
RTODAH	Rejected take-off distance available, helicopter
RTS	Return to service
RTT	Radioteletypewriter
RTZL	Runway touchdown zone light(s)
RUT	Standard regional route transmitting frequencies
RV	Rescue vessel
RVR‡	Runway visual range
RVSM‡	Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410
RWY	Runway

**S**

S	South <i>or</i> southern latitude
S . . .	State of the sea ( <i>followed by figures in METAR/SPECI</i> )
SA	Sand
SALS	Simple approach lighting system
SAN	Sanitary
SAP	As soon as possible
SAR	Search and rescue
SARPS	Standards and Recommended Practices [ICAO]
SAT	Saturday
SATCOM†	Satellite communication
SB	Southbound
SBAS†	( <i>to be pronounced “ESS-BAS”</i> ) Satellite-based augmentation system
SC	Stratocumulus
SCT	Scattered
SD	Standard deviation
SDBY	Stand by
SDF	Step down fix
SE	South-east
SEA	Sea ( <i>used in connection with sea-surface temperature and state of the sea</i> )
SEB	South-eastbound
SEC	Seconds
SECN	Section
SECT	Sector
SELCAL†	Selective calling system
SEP	September
SER	Service <i>or</i> servicing <i>or</i> served
SEV	Severe ( <i>used e.g. to qualify icing and turbulence reports</i> )
SFC	Surface
SG	Snow grains
SGL	Signal
SH . . .	Shower ( <i>followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. SHRASN = showers of rain and snow</i> )
SHF	Super high frequency [3 000 to 30 000 MHz]
SI	International system of units
SID†	Standard instrument departure

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# Signal for use in the teletypewriter service only.

SIF	Selective identification feature
SIG	Significant
SIGMET†	Information concerning en-route weather phenomena which may affect the safety of aircraft operations
SIMUL	Simultaneous <i>or</i> simultaneously
SIWL	Single isolated wheel load
SKED	Schedule <i>or</i> scheduled
SLP	Speed limiting point
SLW	Slow
SMC	Surface movement control
SMR	Surface movement radar
SN	Snow
SNOCLO	Aerodrome closed due to snow ( <i>used in METAR/SPECI</i> )
SNOWTAM†	Special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format
SOC	Start of climb
SPECI†	Aerodrome special meteorological report ( <i>in meteorological code</i> )
SPECIAL†	Local special meteorological report ( <i>in abbreviated plain language</i> )
SPI	Special position indicator
SPL	Supplementary flight plan ( <i>message type designator</i> )
SPOC	SAR point of contact
SPOT†	Spot wind
SQ	Squall
SQL	Squall line
SR	Sunrise
SRA	Surveillance radar approach
SRE	Surveillance radar element of precision approach radar system
SRG	Short range
SRR	Search and rescue region
SRY	Secondary
SS	Sandstorm
SS	Sunset
SSB	Single sideband
SSE	South-south-east
SSR‡	Secondary surveillance radar
SST	Supersonic transport

SSW	South-south-west
ST	Stratus
STA	Straight-in approach
STAR†	Standard instrument arrival
STD	Standard
STF	Stratiform
STN	Station
STNR	Stationary
STOL	Short take-off and landing
STS	Status
STWL	Stopway light(s)
SUBJ	Subject to
SUN	Sunday
SUP	Supplement ( <i>AIP Supplement</i> )
SUPPS	Regional supplementary procedures
SVC	Service message
SVCBL	Serviceable
SW	South-west
SWB	South-westbound
SWY	Stopway

**T**

T	Temperature
... T	True ( <i>preceded by a bearing to indicate reference to True North</i> )
TA	Traffic advisory
TA	Transition altitude
TAA	Terminal arrival altitude
TACAN†	UHF tactical air navigation aid
TAF†	Aerodrome forecast ( <i>in meteorological code</i> )
TA/H	Turn at an altitude/height
TAIL†	Tail wind
TAR	Terminal area surveillance radar
TAS	True airspeed
TAX	Taxiing <i>or</i> taxi
TC	Tropical cyclone
TCAC	Tropical cyclone advisory centre
TCAS RA†	( <i>to be pronounced "TEE-CAS-AR-AY"</i> ) Traffic alert and collision avoidance system resolution advisory
TCH	Threshold crossing height
TCU	Towering cumulus
TDO	Tornado

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# Signal for use in the teletypewriter service only.





UNAP	Unable to approve
UNL	Unlimited
UNREL	Unreliable
UP	Unidentified precipitation ( <i>used in automated METAR/SPECI</i> )
U/S	Unserviceable
UTA	Upper control area
UTC‡	Coordinated Universal Time

**V**

... V ...	Variations from the mean wind direction ( <i>preceded and followed by figures in METAR/SPECI, e.g. 350V070</i> )
VA	Heading to an altitude
VA	Volcanic ash
VAAC	Volcanic ash advisory centre
VAC ...	Visual approach chart ( <i>followed by name/title</i> )
VAL	In valleys
VAN	Runway control van
VAR	Magnetic variation
VAR	Visual-aural radio range
VASIS	Visual approach slope indicator systems
VC ...	Vicinity of the aerodrome ( <i>followed by FG = fog, FC = funnel cloud, SH = shower, PO = dust/sand whirls, BLDU = blowing dust, BLSA = blowing sand, BLSN = blowing snow, DS = duststorm, SS = sandstorm, TS = thunderstorm or VA = volcanic ash, e.g. VCFG = vicinity fog</i> )
VCY	Vicinity
VDF	Very high frequency direction-finding station
VER	Vertical
VFR‡	Visual flight rules
VHF‡	Very high frequency [30 to 300 MHz]
VI	Heading to an intercept
VIP‡	Very important person
VIS	Visibility
VLF	Very low frequency [3 to 30 kHz]
VLR	Very long range
VM	Heading to a manual termination
VMC‡	Visual meteorological conditions

VNAV†	( <i>to be pronounced "VEE-NAV"</i> ) Vertical navigation
VOLMET†	Meteorological information for aircraft in flight
VOR‡	VHF omnidirectional radio range
VORTAC†	VOR and TACAN combination
VOT	VOR airborne equipment test facility
VPA	Vertical path angle
VPT	Visual manoeuvre with prescribed track
VRB	Variable
VSA	By visual reference to the ground
VSP	Vertical speed
VTF	Vector to final
VTOL	Vertical take-off and landing
VV ...	Vertical visibility ( <i>followed by figures in METAR/SPECI and TAF</i> )

**W**

W	West <i>or</i> western longitude
W	White
W ...	Sea-surface temperature ( <i>followed by figures in METAR/SPECI</i> )
WAAS†	Wide area augmentation system
WAC ...	World Aeronautical Chart — ICAO 1:1 000 000 ( <i>followed by name/title</i> )
WAFC	World area forecast centre
WB	Westbound
WBAR	Wing bar lights
WDI	Wind direction indicator
WDSRP	Widespread
WED	Wednesday
WEF	With effect from <i>or</i> effective from
WGS-84	World Geodetic System — 1984
WI	Within
WID	Width <i>or</i> wide
WIE	With immediate effect <i>or</i> effective immediately
WILCO†	Will comply
WIND	Wind
WIP	Work in progress
WKN	Weaken <i>or</i> weakening
WNW	West-north-west
WO	Without
WPT	Way-point

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# Signal for use in the teletypewriter service only.

WRNG	Warning	<b>Y</b>	
WS	Wind shear	Y	Yellow
WSPD	Wind speed	Y CZ	Yellow caution zone ( <i>runway lighting</i> )
WSW	West-south-west	YES*	Yes (affirmative) ( <i>to be used in AFS as a procedure signal</i> )
WT	Weight	YR	Your
WTSPT	Waterspout		
WWW	Worldwide web		
WX	Weather		
<b>X</b>		<b>Z</b>	
X	Cross	Z	Coordinated Universal Time ( <i>in meteorological messages</i> )
XBAR	Crossbar ( <i>of approach lighting system</i> )		
XNG	Crossing		
XS	Atmospherics		

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# Signal for use in the teletypewriter service only.



## ABBREVIATIONS

### ENCODE

#### A

Abbreviated precision approach path indicator <i>(to be pronounced "AY-PAPI")</i>	APAPI†	Aerodrome forecast <i>(in meteorological code)</i>	TAF†
Abbreviated T visual approach slope indicator system <i>(to be pronounced "AY-TEE-VASIS")</i>	AT-VASIS†	Aerodrome obstacle chart <i>(followed by type and name/title)</i>	AOC . . .
Abeam	ABM	Aerodrome office <i>(specify service)</i>	ADO
About	ABT	Aerodrome partially covered by fog	PRFG
Above	ABV	Aerodrome reference point	ARP
Above aerodrome level	AAL	Aerodrome routine meteorological report <i>(in meteorological code)</i>	METAR†
Above ground level	AGL	Aerodrome special meteorological report <i>(in meteorological code)</i>	SPECI†
Above mean sea level	AMSL	Aerodromes, air routes and ground aids	AGA
Above mountains	MON	Aerodrome traffic zone	ATZ
Accelerate-stop distance available	ASDA	Aeronautical chart — 1:500 000 <i>(followed by name/title)</i>	ANC . . .
Accept <i>or</i> accepted	ACPT	Aeronautical fixed service	AFS
Acceptance <i>(message type designator)</i>	ACP	Aeronautical fixed telecommunication network	AFTN‡
Acknowledge	ACK	Aeronautical information circular	AIC
Active <i>or</i> activated <i>or</i> activity	ACT	Aeronautical information publication	AIP
Actual time of arrival	ATA‡	Aeronautical information regulation and control	AIRAC
Actual time of departure	ATD‡	Aeronautical information services	AIS
Addition <i>or</i> additional	ADDN	Aeronautical maps and charts	MAP
Adjacent	ADJ	Aeronautical mobile satellite service	AMSS
Advance boundary information	ABI	Aeronautical mobile service	AMS
Advise	ADZ	Aeronautical navigation chart — small scale <i>(followed by name/title and scale)</i>	ANCS . . .
Advise at what time able	AWTA	Aeronautical telecommunication network	ATN
Advisory area	ADA	After . . . <i>(time or place)</i>	AFT . . .
Advisory route	ADR	After passing	APSG
Advisory service	ADVS	Again	AGN
Aerodrome	AD	Airborne collision avoidance system	ACAS†
Aerodrome beacon	ABN	Aircraft	ACFT
Aerodrome chart	ADC	Aircraft accident, notification of	ACCID
Aerodrome closed due to snow <i>(used in METAR/SPECI)</i>	SNOCLO	Aircraft autonomous integrity monitoring	AAIM
Aerodrome control tower <i>or</i> aerodrome control	TWR	Aircraft classification number	ACN
Aerodrome flight information service	AFIS		

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# Signal for use in the teletypewriter service only.

Aircraft communication addressing and reporting system ( <i>to be pronounced "AY-CARS"</i> )	ACARS†	Amended meteorological message ( <i>message type designator</i> )	AAA ( <i>or AAB, AAC . . . etc., in sequence</i> )
Aircraft earth station	AES	Amendment ( <i>AIP Amendment</i> )	AMDT
Aircraft parking/docking chart ( <i>followed by name/title</i> )	APDC . . .	Answer	ANS
Air defence identification zone ( <i>to be pronounced "AY-DIZ"</i> )	ADIZ†	Approach	APCH
Airport	AP	Approach control office <i>or</i> approach control <i>or</i> approach control service	APP
Air-report	AIREP†	Approach lighting system	ALS
Air-report ( <i>message type designator</i> )	ARP	Approve <i>or</i> approved <i>or</i> approval	APV
Airspeed or headwind gain	GAIN	Approximate <i>or</i> approximately	APRX
Airspeed or headwind loss	LOSS	April	APR
Air-to-air	A/A	Apron	APN
Air-to-ground	A/G	Area chart	ARC
Air traffic control ( <i>in general</i> )	ATC‡	Area control centre <i>or</i> area control	ACC‡
Air traffic control surveillance minimum altitude chart ( <i>followed by name/title</i> )	ATCSMAC . . .	Area forecast for low-level flights	GAMET
Air traffic flow management	ATFM	Area minimum altitude	AMA
Air traffic management	ATM	Area navigation ( <i>to be pronounced "AR-NAV"</i> )	RNAV†
Air traffic services	ATS	Arrange	ARNG
Air traffic services interfacility data communications	AIDC	Arresting ( <i>specify (part of) aircraft arresting equipment</i> )	ARST
Air traffic services reporting office	ARO	Arrival ( <i>message type designator</i> )	ARR
Airway	AWY	Arrive <i>or</i> arrival	ARR
Alert phase	ALERFA†	Ascend to <i>or</i> ascending to	ASC
Alerting ( <i>message type designator</i> )	ALR	Asphalt	ASPH
Alerting service	ALRS	Assigned altitude deviation	AAD
Alighting area	ALA	As soon as possible	SAP
All up weight	AUW	At ( <i>followed by time at which weather change is forecast to occur</i> )	AT . . .
Alternate <i>or</i> alternating ( <i>light alternates in colour</i> )	ALTN	At . . . ( <i>time or place</i> )	ATP . . .
Alternate ( <i>aerodrome</i> )	ALTN	Atmospheric pressure at aerodrome elevation ( <i>or at runway threshold</i> )	QFE‡
Altimeter check location	ACL	Atmospherics	XS
Altimeter sub-scale setting to obtain elevation when on the ground	QNH‡	At sea	MAR
Altimetry system error	ASE	ATS/MET reporting point	MRP
Altitude	ALT	Attention	ATTN
Altocumulus	AC	At the coast	COT
Altostratus	AS	August	AUG
Amber	A	Authorized <i>or</i> authorization	AUTH
Amend <i>or</i> amended ( <i>used to indicate amended meteorological message; message type designator</i> )	AMD	Automated flight information service	FISA
		Automatic dependent surveillance — broadcast	ADS-B‡
		Automatic dependent surveillance — contract	ADS-C‡
		Automatic dependent surveillance unit	ADSU

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# Signal for use in the teletypewriter service only.

Automatic direction-finding equipment	ADF‡	Calling	CLG
Automatic error correction	ARQ	Cancel <i>or</i> cancelled	CNL
Automatic terminal information service	ATIS†	Candela	CD
Auxiliary	AUX	Category	CAT
Available <i>or</i> availability	AVBL	Caution	CTN
Average	AVG	Celsius ( <i>Centigrade</i> ), Degrees	C
Aviation gasoline	AVGAS†	Centimetre	CM
Aerodrome meteorological report ( <i>in meteorological code</i> )	METAR†	Centre ( <i>preceded by runway designation number to identify a parallel runway</i> )	... C
Aerodrome special meteorological report ( <i>in meteorological code</i> )	SPECI†	Centre line	CL
Azimuth	AZM	Change frequency to ...	CF
		Change-over point	COP
		Channel	CH
		Check	CK
		Chemical	CHEM
		Circling guidance light(s)	CGL
		Cirrocumulus	CC
		Cirrostratus	CS
		Cirrus	CI
		Civil	CIV
		Clear air turbulence	CAT
		Clear(s) <i>or</i> cleared to ... <i>or</i> clearance	CLR
		Clear type of ice formation	CLA
		Clearway	CWY
		Climb-out area	CLIMB-OUT
		Climb to <i>or</i> climbing to	CMB
		Climb to and maintain	CTAM
		Close <i>or</i> closed <i>or</i> closing	CLSD
		Cloud	CLD
		Cloud base	BASE†
		Cloud top	TOP†
		Cockpit voice recorder	CVR
		Collision risk model	CRM
		Completion <i>or</i> completed <i>or</i> complete	CMPL
		Commercial broadcasting station	BS
		Common ICAO data interchange network	CIDIN†
		Communications	COM
		Communications, navigation and surveillance	CNS
		Concrete	CONC
		Condition	COND
		Confirm <i>or</i> I confirm ( <i>to be used in AFS as a procedure signal</i> )	CFM*
		Constant radius arc to a fix	RF
		Construction <i>or</i> constructed	CONST
<b>B</b>			
Barometric vertical navigation ( <i>to be pronounced "BAA-RO-VEE-NAV"</i> )	BARO-VNAV†		
Beacon ( <i>aeronautical ground light</i> )	BCN		
Bearing	BRG		
Becoming	BECMG		
Before	BFR		
Below ...	BLW ...		
Below clouds	BLO		
Between	BTN		
Between layers	BTL		
Binary universal form for the representation of meteorological data	BUFR		
Blowing ( <i>followed by DU = dust, SA = sand or SN = snow</i> )	BL ...		
Blue	B		
Bombing	BOMB		
Boundary	BDRY		
Braking	BRKG		
Braking action	BA		
Broadcast	BCST		
Broadcasting station, commercial	BS		
Broken	BKN		
Building	BLDG		
By visual reference to the ground	VSA		
<b>C</b>			
Calibration	CLBR		
Call sign	CS		

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# Signal for use in the teletypewriter service only.

Contact	CTC	<b>D</b>	
Continue(s) <i>or</i> continued	CONT	Daily	DLY
Continuous	CONS	Danger <i>or</i> dangerous	DNG
Continuous day and night service	H24	Danger area ( <i>followed by identification</i> )	D . . .
Continuous wave	CW	Data link automatic terminal information service ( <i>to be pronounced "DEE-ATIS"</i> )	D-ATIS†
Control	CTL	Data link initiation capability	DLIC
Control area	CTA	Data link VOLMET	D-VOLMET
Control indicated is operational control	OPC	Date-time group	DTG
Controller-pilot data link communications	CPDLC‡	Datum crossing point	DCP
Control zone	CTR	Dead reckoning	DR
Coordinate <i>or</i> coordination	COOR	December	DEC
Coordinated Universal Time	UTC‡	Decision altitude	DA
Coordinated Universal Time ( <i>in meteorological messages</i> )	Z	Decision height	DH
Coordinates	COORD	Degrees	DEG
Coordination ( <i>message type designator</i> )	CDN	Degrees Celsius ( <i>Centigrade</i> )	C
Correct <i>or</i> correction <i>or</i> corrected ( <i>used to indicate corrected meteorological message; message type designator</i> )	COR	Delay ( <i>message type designator</i> )	DLA
Corrected meteorological message ( <i>message type designator</i> )	CCA ( <i>or</i> CCB, CCC . . . etc., in sequence)	Delay <i>or</i> delayed	DLA
Course from a fix to an altitude	FA	Delayed ( <i>used to indicate delayed meteorological message; message type designator</i> )	RTD
Course from a fix to manual termination ( <i>used in navigation database coding</i> )	FM	Delayed meteorological message ( <i>message type designator</i> )	RRA ( <i>or</i> RRB, RRC . . . etc., in sequence)
Course to a fix	CF	Dense upper cloud	DUC
Course to an altitude	CA	Depart <i>or</i> departure	DEP
Cover <i>or</i> covered <i>or</i> covering	COV	Departure ( <i>message type designator</i> )	DEP
Cross	X	Departure end of the runway	DER
Crossbar ( <i>of approach lighting system</i> )	XBAR	Deposition	DEPO
Crossing	XNG	Depth	DPT
Cruise	CRZ	Descend to <i>or</i> descending to	DES
Cumuliform	CUF	Descend to and maintain	DTAM
Cumulonimbus ( <i>to be pronounced "CEE BEE"</i> )	CB‡	Destination	DEST
Cumulus	CU	Deteriorate <i>or</i> deteriorating	DTRT
Current flight plan ( <i>message type designator</i> )	CPL	Deviation <i>or</i> deviating	DEV
Customs	CUST	Dew point temperature	DP
Cyclic redundancy check	CRC	Diffuse	DIF
		Digital flight data recorder	DFDR
		Direct ( <i>in relation to flight plan clearances and type of approach</i> )	DCT
		Direct controller-pilot communications	DCPC
		Direction finding	DF
		Displaced runway threshold	DTHR
		Distance	DIST

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# Signal for use in the teletypewriter service only.



Distance from touchdown indicator	DFTI
Distance measuring equipment	DME‡
Distress phase	DETRESFA†
Divert <i>or</i> diverting	DIV
Docking	DCKG
Domestic	DOM
Doppler VOR	DVOR
Double channel duplex	DCD
Double channel simplex	DCS
Double sideband	DSB
Downward ( <i>tendency in RVR during previous 10 minutes</i> )	D
Do you intend to ask me for a series of bearings? <i>or</i> I intend to ask you for a series of bearings ( <i>to be used in radiotelegraphy as a Q Code</i> )	QDL
Drizzle	DZ
Dual tandem wheels	DTW
Dual wheels	DW
Duration	DUR
During	DRG
Dust	DU
Dust/sand whirls ( <i>dust devils</i> )	PO
Duststorm	DS

**E**

East <i>or</i> eastern longitude	E
Eastbound	EB
East-north-east	ENE
East-south-east	ESE
Effective from <i>or</i> with effect from	WEF
Effective immediately <i>or</i> with immediate effect	WIE
Electronic flight instrument system ( <i>to be pronounced “EE-FIS”</i> )	EFIS†
Elevation	ELEV
Elevation differential area	EDA
Embedded in a layer ( <i>to indicate cumulonimbus embedded in layers of other clouds</i> )	EMBD
Emergency	EMERG
Emergency location beacon — aircraft	ELBA†
Emergency locator transmitter	ELT
Emission	EM

Engine	ENG
Enhanced vision system	EVS
En route	ENR
Enroute chart ( <i>followed by name/title</i> )	ENRC . . .
En-route surveillance radar	RSR
Equipment	EQPT
Error ( <i>to be used in AFS as a procedure signal</i> )	EEE#
Estimate <i>or</i> estimated <i>or</i> estimation ( <i>message type designator</i> )	EST
Estimated elapsed time	EET
Estimated off-block time	EOBT
Estimated time of arrival <i>or</i> estimating arrival	ETA*‡
Estimated time of departure <i>or</i> estimating departure	ETD‡
Estimated time over significant point	ETO
European geostationary navigation overlay service ( <i>to be pronounced “EGG-NOS”</i> )	EGNOS†
European regional OPMET data exchange	EUR RODEX
Every	EV
Except	EXC
Exercises <i>or</i> exercising <i>or</i> to exercise	EXER
Expect <i>or</i> expected <i>or</i> expecting	EXP
Expect further clearance	EFC
Expected approach time	EAT
Extend <i>or</i> extending	EXTD
Extra long range	ELR
Extremely high frequency [30 000 to 300 000 MHz]	EHF

**F**

Facilitation of international air transport	FAL
Facilities	FAC
Facsimile transmission	FAX
February	FEB
Feet ( <i>dimensional unit</i> )	FT
Feet per minute	FPM
Few	FEW
Fictitious threshold point	FTP
Field	FLD

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# Signal for use in the teletypewriter service only.

Filed flight plan ( <i>message type designator</i> )	FPL	From ( <i>followed by time weather change is forecast to begin</i> )	FM . . .
Final approach	FNA	From ( <i>used to precede the call sign of the calling station</i> ) ( <i>to be used in AFS as a procedure signal</i> )	DE*
Final approach and take-off area	FATO	Front ( <i>relating to weather</i> )	FRONT†
Final approach fix	FAF	Frost ( <i>used in aerodrome warnings</i> )	FROST†
Final approach point	FAP	Fuel remaining	FR
Final approach segment	FAS	Full stop landing	FSL
Firing	FRNG	Funnel cloud ( <i>tornado or water spout</i> )	FC
First	FST		
Fixed	F		
Flares	FLR		
Flashing	FLG		
Flight	FLT		
Flight check	FLTCK		
Flight data processing system	FDPS		
Flight information centre	FIC		
Flight information region	FIR‡		
Flight information service	FIS		
Flight level	FL		
Flight management computer	FMC		
Flight management system	FMS‡		
Flight path alignment point	FPAP		
Flight plan	PLN		
Flight plan cancellation ( <i>message type designator</i> )	CNL		
Flight plan filed in the air	AFIL		
Flight plan route	FPR		
Flight service station	FSS		
Flight technical error	FTE		
Flight technical tolerance	FTT		
Flow management unit	FMU		
Fluctuating <i>or</i> fluctuation <i>or</i> fluctuated	FLUC		
Fly <i>or</i> flying	FLY		
Fog	FG		
Fog patches	BCFG		
Follow(s) <i>or</i> following	FLW		
Forecast	FCST		
Freezing	FZ		
Freezing drizzle	FZDZ		
Freezing fog	FZFG		
Freezing rain	FZRA		
Frequency	FREQ		
Frequent	FRQ		
Friction coefficient	FCT		
Friday	FRI		
From	FM		
		<b>G</b>	
		GBAS azimuth reference point	GARP
		GBAS landing system	GLS‡
		General	GEN
		Geographic <i>or</i> true	GEO
		Geoid undulation	GUND
		Glide path	GP
		Glide path angle	GPA
		Glide path intercept point	GPIP
		Glider	GLD
		Global navigation satellite system	GNSS‡
		Global orbiting navigation satellite system ( <i>to be pronounced "GLO-NAS"</i> )	GLONASS†
		Global positioning system	GPS‡
		Go ahead, resume sending ( <i>to be used in AFS as a procedure signal</i> )	GA
		GPS and geostationary earth orbit augmented navigation	GAGAN†
		Grass landing area	GRASS
		Gravel	GRVL
		Green	G
		Ground	GND
		Ground-based augmentation system ( <i>to be pronounced "GEE-BAS"</i> )	GBAS†
		Ground-based regional augmentation system ( <i>to be pronounced "GRASS"</i> )	GRAS†
		Ground — by visual reference to the	VSA
		Ground check	GNDCK
		Ground controlled approach system <i>or</i> ground controlled approach	GCA‡
		Ground earth station	GES

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# Signal for use in the teletypewriter service only.

Ground movement chart (*followed by name/title*)

Ground proximity warning system	GMC . . .
Ground speed	GPWS‡
Ground-to-air	GS
Ground-to-air and air-to-ground	G/A
	G/A/G

## H

Hail	GR
Hazard beacon	HBN
Haze	HZ
Heading	HDG
Heading to a manual termination	VM
Heading to an altitude	VA
Heading to an intercept	VI
Head-up display	HUD
Heavy	HVY
Heavy ( <i>used to indicate the intensity of weather phenomena, e.g. heavy rain = HVY RA</i> )	HVY
Hectopascal	HPA
Height <i>or</i> height above	HGT
Helicopter	HEL
Helicopter approach path indicator	HAPI
Here . . . <i>or</i> herewith	ER*
Hertz ( <i>cycle per second</i> )	HZ
High and very high frequency direction-finding stations ( <i>at the same location</i> )	HVDF
High frequency [3 000 to 30 000 kHz]	HF‡
High frequency direction-finding station	HDF
High pressure area <i>or</i> the centre of high pressure	H
Higher	HYR
Holding	HLDG
Holding/racetrack to a fix	HF
Holding/racetrack to a manual termination	HM
Holding/racetrack to an altitude	HA
Holiday	HOL
Hospital aircraft	HOSP
Hours	HR
Hurricane	HURCN

## I

I have nothing to send to you <i>or</i> none	NIL*†
Ice crystals ( <i>very small ice crystals in suspension, also known as diamond dust</i> )	IC
Ice on runway	IR
Ice pellets	PL
Icing	ICE
Identification	IDENT†
Identification beacon	IBN
Identification friend/foe	IFF
Identifier <i>or</i> identify	ID
If not possible	INP
Immediate <i>or</i> immediately	IMT
Immigration	IMG
Improve <i>or</i> improving	IMPR
In and out of clouds	IAO
In cloud	INC
Inbound	INBD
Independent sideband	ISB
Indicated airspeed	IAS
Indicator for maximum temperature ( <i>used in the TAF code form</i> )	TX
Inertial navigation system	INS
Inertial reference system	IRS
Information	INFO†
Information concerning en-route weather phenomena which may affect the safety of aircraft operations	SIGMET†
Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations	AIRMET†
Initial approach	INA
Initial approach fix	IAF
Inland	LAN
Inner marker	IM
Inoperative	INOP
In progress	INPR
Install <i>or</i> installed <i>or</i> installation	INSTL
Instrument	INSTR
Instrument approach chart ( <i>followed by name/title</i> )	IAC . . .
Instrument approach procedure	IAP
Instrument flight rules	IFR‡
Instrument landing system	ILS‡

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\* Signal is also available for use in communicating with stations of the maritime mobile service.

# Signal for use in the teletypewriter service only.

Instrument meteorological conditions	IMC‡	Landing threshold point	LTP
Intensify <i>or</i> intensifying	INTSF	Landline teletypewriter	LTT
Intensity	INTST	Lateral navigation ( <i>to be pronounced</i> <i>“EL-NAV”</i> )	LNAV†
Intermediate approach fix	IF	Latitude	LAT
International	INTL	Layer <i>or</i> layered	LYR
International general aviation	IGA	Leave <i>or</i> leaving	LVE
International NOTAM office	NOF	Left ( <i>preceded by runway designation</i> <i>number to identify a parallel runway</i> )	. . . L
International standard atmosphere	ISA	Length	LEN
International system of units	SI	Level	LVL
Interrogation sign (question mark) ( <i>to be used in AFS as a procedure</i> <i>signal</i> )	IMI*	Light ( <i>used to indicate the intensity of</i> <i>weather phenomena, interference or</i> <i>static reports, e.g. light rain = FBL</i> <i>RA</i> )	FBL
Interrogator	INTRG	Light <i>or</i> lighting	LGT
Interrupt <i>or</i> interruption <i>or</i> interrupted	INTRP	Light and variable ( <i>relating to wind</i> )	LV
Intersection	INT	Light intensity high	LIH
Intersection of air routes	IAR	Light intensity low	LIL
In valleys	VAL	Light intensity medium	LIM
Isolated	ISOL	Lighted	LGTD
		Limited	LTD
<b>J</b>		Line ( <i>used in SIGMET</i> )	LINE
January	JAN	Local <i>or</i> locally <i>or</i> location <i>or</i> located	LCA
Jet stream	JTST	Local mean time	LMT
July	JUL	Local routine meteorological report ( <i>in abbreviated plain language</i> )	MET REPORT
June	JUN	Local special meteorological report ( <i>in abbreviated plain language</i> )	SPECIAL†
<b>K</b>		Localizer	LOC
Kilograms	KG	Localizer performance with vertical guidance	LPV
Kilohertz	KHZ	Locator	L
Kilometres	KM	Locator, middle	LM
Kilometres per hour	KMH	Locator, outer	LO
Kilopascal	KPA	Logical acknowledgement ( <i>message type</i> <i>designator</i> )	LAM
Kilowatts	KW	Long ( <i>used to indicate the type of</i> <i>approach desired or required</i> )	LNG
Knots	KT	Longitude	LONG
Knots indicated airspeed	KIAS	Long range	LRG
<b>L</b>		LORAN ( <i>long range air navigation</i> <i>system</i> )	LORAN†
Landing	LDG	Low drifting ( <i>followed by DU = dust,</i> <i>SA = sand or SN = snow</i> )	DR . . .
Landing direction indicator	LDI	Low frequency [30 to 300 kHz]	LF
Landing distance available	LDA		
Landing distance available, helicopter	LDAH		

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# Signal for use in the teletypewriter service only.

Low pressure area *or* the centre of low pressure

L

Low visibility procedures

LVP

## M

Mach number *(followed by figures)*

M . . .

Magnetic

MAG

Magnetic bearing

QDR

Magnetic heading *(zero wind)*

QDM‡

Magnetic orientation of runway

QFU

Magnetic variation

VAR

Maintain

MNTN

Maintenance

MAINT

Manual A1 simplex

MAS

March

MAR

Marker radio beacon

MKR

Maximum

MAX

Maximum authorized altitude

MAA

Maximum temperature *(followed by figures in TAF)*

TX . . .

Maximum value of wind speed or runway visual range *(followed by figures in METAR/SPECI and TAF)*

P . . .

May

MAY

Mean sea level

MSL

Medium and high frequency direction-finding stations *(at the same location)*

MHDF

Medium and very high frequency direction-finding stations

MVDF

Medium frequency [300 to 3 000 kHz]

MF

Medium frequency direction-finding station

MDF

Medium, high and very high frequency direction-finding stations *(at the same location)*

MHVDF

Medium range

MRG

Megahertz

MHZ

Message

MSG

Message . . . *(transmission identification)* has been misrouted *(to be used in AFS as a procedure signal)*

MSR#

Meteorological *or* meteorology

MET†

Meteorological information for aircraft in flight

VOLMET†

Meteorological watch office

MWO

Metres *(preceded by figures)*

. . . M

Metres per second

MPS

Metric units

MTU

Microburst

MBST

Microwave landing system

MLS‡

Middle marker

MM

Mid-point *(related to RVR)*

MID

Military

MIL

Military operating area

MOA

Minimum

MNM

Minimum crossing altitude

MCA

Minimum descent altitude

MDA

Minimum descent height

MDH

Minimum en-route altitude

MEA

Minimum eye height over threshold *(for visual approach slope indicator systems)*

MEHT

Minimum navigation performance specifications

MNPS

Minimum obstacle clearance *(required)*

MOC

Minimum obstacle clearance altitude

MOCA

Minimum operational performance standards

MOPS†

Minimum reception altitude

MRA

Minimum safe altitude warning

MSAW

Minimum sector altitude

MSA

Minimum temperature *(followed by figures in TAF)*

TN . . .

Minimum value of runway visual range *(followed by figures in METAR/SPECI)*

M . . .

Minus

MS

Minutes

MIN\*

Missed approach holding fix

MAHF

Missed approach point

MAPT

Missed approach turning fix

MATF

Missing . . . *(transmission identification)* *(to be used in AFS as a procedure signal)*

MIS

Mist

BR

Mixed type of ice formation *(white and clear)*

MX

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# Signal for use in the teletypewriter service only.

Moderate ( <i>used to indicate the intensity of weather phenomena, interference or static reports, e.g. moderate rain = MODRA</i> )	MOD
Modification ( <i>message type designator</i> )	CHG
Modulated continuous wave	MCW
Monday	MON
Monitor <i>or</i> monitoring <i>or</i> monitored	MNT
Monopulse secondary surveillance radar	MSSR
Mountain	MT
Mountain waves	MTW
Move <i>or</i> moving <i>or</i> movement	MOV
Multi-functional transport satellite (MTSAT) satellite-based augmentation system ( <i>to be pronounced "EM-SAS"</i> )	MSAS†

**N**

National	NTL
National AIS system centre	NASC†
Nautical miles	NM
Navigation	NAV
Navigation system error	NSE
Near <i>or</i> over large towns	CIT
Next	NXT
Night	NGT
Nil significant cloud	NSC
Nil significant weather	NSW
Nimbostratus	NS
No <i>or</i> negative <i>or</i> permission not granted <i>or</i> that is not correct	NEG
No change	NC
No cloud detected ( <i>used in automated METAR/SPECI</i> )	NCD
No directional variations available ( <i>used in automated METAR/SPECI</i> )	NDV
No distinct tendency ( <i>in RVR during previous 10 minutes</i> )	N
No (negative) ( <i>to be used in AFS as a procedure signal</i> )	NO
No name, unnamed	NN
No reply heard	NRH
No significant change ( <i>used in trend-type landing forecasts</i> )	NOSIG†

No specific working hours	HX
No transgression zone	NTZ‡
Noise abatement departure procedure	NADP
Non-directional radio beacon	NDB‡
Non-precision approach	NPA
None <i>or</i> I have nothing to send to you	NIL*†
Normal	NML
Normal operating zone	NOZ‡
North <i>or</i> northern latitude	N
North Atlantic	NAT
Northbound	NB
North-east	NE
North-eastbound	NEB
North-north-east	NNE
North-north-west	NNW
North-west	NW
North-westbound	NWB
Not before	NBFR

Notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations	NOTAM†
Notification of an aircraft accident	ACCID
November	NOV
Number	NR

**O**

Obscure <i>or</i> obscured <i>or</i> obscuring	OBSC
Observe <i>or</i> observed <i>or</i> observation	OBS
Obstacle	OBST
Obstacle assessment surface	OAS
Obstacle clearance altitude	OCA
Obstacle clearance height	OCH
Obstacle clearance surface	OCS
Obstacle free zone	OFZ
Obstacle identification surface	OIS
Occasional <i>or</i> occasionally	OCNL
Occulting ( <i>light</i> )	OCC
Ocean station vessel	OSV

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# Signal for use in the teletypewriter service only.

Oceanic area control centre	OAC
Oceanic control area	OCA
October	OCT
On-line data interchange	OLDI†
On request	O/R
On top	OTP
Opaque, white type of ice formation	OPA
Open <i>or</i> opening <i>or</i> opened	OPN
Operations	OPS†
Operator <i>or</i> operate <i>or</i> operative <i>or</i> operating <i>or</i> operational	OPR
Operational control is the control indicated	OPC
Operational meteorological ( <i>information</i> )	OPMET†
Order	ORD
Organized track system	OTS
Originate ( <i>to be used in AFS as a procedure signal</i> )	OGN
Outbound	OUBD
Outer marker	OM
Overcast	OVC
Overhead	OHD

**P**

Parachute jumping exercise	PJE
Parallel	PARL
Parking	PRKG
Passenger(s)	PAX
Passing	PSG
Pavement classification number	PCN
Performance	PER
Performance-based navigation	PBN
Permanent	PERM
Persons on board	POB
Pierced steel plank	PSP
Pilot-controlled lighting	PCL
Plan position indicator	PPI
Plus	PS
Point-in-space reference point	PRP
Point of no return	PNR
Polar track structure	PTS
Position	PSN
Possible	POSS
Power	PWR

Practice low approach	PLA
Precision approach	PA
Precision approach lighting system ( <i>specify category</i> )	PALS
Precision approach path indicator	PAPI†
Precision approach radar	PAR‡
Precision approach terrain chart ( <i>followed by name/title</i> )	PATC . . .
Pre-departure clearance	PDC‡
Preflight information bulletin	PIB
Present level	PLVL
Present position	PPSN
Pressure system(s)	PSYS
Primary	PRI
Primary surveillance radar	PSR‡
Prior notice required	PN
Prior permission required	PPR
Probability	PROB†
Procedure	PROC
Procedure design gradient	PDG
Procedure turn	PTN
Procedures for air navigation services	PANS
Proceed <i>or</i> proceeding	PCD
Processed meteorological data in the form of grid point values expressed in binary form ( <i>meteorological code</i> )	GRIB
Prohibited area ( <i>followed by identification</i> )	P . . .
Provisional	PROV

**Q**

Quadrant	QUAD
----------	------

**R**

Radar position indicator	RPI‡
Radar position symbol	RPS
Radial	RDL
Radio	RDO
Radio range	RNG
Radiocommunication failure ( <i>message type designator</i> )	RCF
Radiotelegraph	RTG

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# Signal for use in the teletypewriter service only.

Radiotelephone	RTF	Request ( <i>to be used in AFS as a procedure signal</i> )	RQ*
Radioteletypewriter	RTT	Request flight plan ( <i>message type designator</i> )	RQP
Ragged	RAG	Request level change en route	RLCE
Rain	RA	Request supplementary flight plan ( <i>message type designator</i> )	RQS
Range ( <i>lights</i> )	RG	Requested level not available	RLNA
Rate of climb	ROC	Required communication performance	RCP‡
Rate of descent	ROD	Required navigation performance	RNP‡
Rate of turn	R	Requirements	RQMNTS
Reach <i>or</i> reaching	RCH	Re-route	RE RTE
Reach cruising altitude	RCA	Rescue boat	RB
Receive <i>or</i> receiver	REC	Rescue coordination centre	RCC
Received ( <i>acknowledgement of receipt</i> ) ( <i>to be used in AFS as a procedure signal</i> )	R*	Rescue sub-centre	RSC
Receiver autonomous integrity monitoring	RAIM†	Rescue vessel	RV
Receiving only	RON	Resolution advisory	RA
Recent ( <i>used to qualify weather phenomena, e.g. recent rain = RERA</i> )	RE	Responder beacon	RSP
Reclearance in flight	RIF	Restricted area ( <i>followed by identification</i> )	R . . .
Recleared	RCLR	Return <i>or</i> returned <i>or</i> returning	RTN
Red	R	Return to service	RTS
Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410	RVSM‡	Right ( <i>direction of turn</i> )	RITE
Reference datum height	RDH	Right ( <i>preceded by runway designation number to identify a parallel runway</i> )	. . . R
Reference path data selector	RPDS	Right-hand circuit	RHC
Reference to . . . <i>or</i> refer to . . .	REF	Rime ( <i>used in aerodrome warnings</i> )	RIME†
Regional AIS system centre	RASC†	Root sum square	RSS
Regional OPMET bulletin exchange ( <i>scheme</i> )	ROBEX†	Route	RTE
Regional supplementary procedures	SUPPS	Rules of the air and air traffic services	RAC
Registration	REG	Runway	RWY
Rejected take-off distance available, helicopter	RTODAH	Runway ( <i>followed by figures in METAR/SPECI</i> )	R . . .
Relay to	RLA	Runway alignment indicator	RAI
Remark	RMK	Runway arresting gear	RAG
Remote altimeter setting source	RASS	Runway centre line	RCL
Repeat <i>or</i> I repeat ( <i>to be used in AFS as a procedure signal</i> )	RPT*	Runway centre line light(s)	RCLL
Repetitive flight plan	RPL	Runway(s) cleared ( <i>used in METAR/SPECI</i> )	CLRD
Replace <i>or</i> replaced	RPLC	Runway control van	VAN
Report <i>or</i> reporting <i>or</i> reporting point	REP	Runway edge light(s)	REDL
Report leaving	RL	Runway end light(s)	RENL
Report reaching	RR	Runway end safety area	RESA
Request <i>or</i> requested	REQ	Runway lead-in lighting system	RLLS
		Runway surface condition	RSCD
		Runway threshold light(s)	RTHL

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# Signal for use in the teletypewriter service only.





Squall line	SQL
Stand by	SDBY
Standard	STD
Standard deviation	SD
Standard instrument arrival	STAR†
Standard instrument departure	SID†
Standard regional route transmitting frequencies	RUT
Standards and Recommended Practices [ICAO]	SARPS
Start of climb	SOC
State of the sea ( <i>followed by figures in METAR/SPECI</i> )	S . . .
Station	STN
Stationary	STNR
Status	STS
Step down fix	SDF
Stop-end ( <i>related to RVR</i> )	END
Stopway	SWY
Stopway light(s)	STWL
Straight-in approach	STA
Stratiform	STF
Stratocumulus	SC
Stratus	ST
Subject to	SUBJ
Sunday	SUN
Sunrise	SR
Sunrise to sunset	HJ
Sunset	SS
Sunset to sunrise	HN
Super high frequency [3 000 to 30 000 MHz]	SHF
Supersonic transport	SST
Supplement ( <i>AIP Supplement</i> )	SUP
Supplementary flight plan ( <i>message type designator</i> )	SPL
Surface	SFC
Surface movement control	SMC
Surface movement radar	SMR
Surveillance radar approach	SRA
Surveillance radar element of precision approach radar system	SRE

**T**

Tail wind	TAIL†
Take-off	TKOF
Take-off distance available	TODA
Take-off distance available, helicopter	TODAH
Take-off run available	TORA
Taxiing <i>or</i> taxi	TAX
Taxiing guidance system	TGS
Taxiway	TWY
Taxiway-link	TWYL
Technical reason	TECR
Telephone	TEL
Teletypewriter	TT
Temperature	T
Temporary <i>or</i> temporarily	TEMPO†
Temporary reserved airspace	TRA
Terminal area surveillance radar	TAR
Terminal arrival altitude	TAA
Terminal control area	TMA‡
Terminal VOR	TVOR
Text ( <i>when the abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI TXT</i> ) ( <i>to be used in AFS as a procedure signal</i> )	
The address ( <i>when this abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI ADS</i> ) ( <i>to be used in AFS as a procedure signal</i> )	TXT* ADS*
The last message received by me was . . . ( <i>to be used in AFS as a procedure signal</i> )	
The last message sent by me was . . . <i>or</i> Last message was . . . ( <i>to be used in AFS as a procedure signal</i> )	
This is a channel-continuity-check of transmission to permit comparison of your record of channel-sequence numbers of messages received on the channel ( <i>to be used in AFS as a procedure signal</i> )	
This is a duplicate message ( <i>to be used in AFS as a procedure signal</i> )	
Threshold	CH# DUPE# THR

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# Signal for use in the teletypewriter service only.

Threshold crossing height	TCH	Turn at an altitude/height	TA/H
Through	THRU	Turn height	TNH
Thunderstorm ( <i>in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome</i> )	TS	Turning point	TP
Thunderstorm ( <i>followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. TSRASN = thunderstorm with rain and snow</i> )	TS . . .	T visual approach slope indicator system ( <i>to be pronounced "TEE-VASIS"</i> )	T-VASIS†
Thursday	THU	Type of aircraft	TYP
Till ( <i>followed by time by which weather change is forecast to end</i> )	TL . . .	Typhoon	TYPH
To . . . ( <i>place</i> )	TO . . .	<b>U</b>	
Top of climb	TOC	UHF tactical air navigation aid	TACAN†
Tornado	TDO	Ultra high frequency [300 to 3 000 MHz]	UHF‡
Touch-and-go landing	TGL	Ultra high frequency direction-finding station	UDF
Touchdown and lift-off area	TLOF	Ultra long range	ULR
Touchdown zone	TDZ	Unable	UNA
Towering cumulus	TCU	Unable higher due traffic	UHDT
Toxic	TOX	Unable to approve	UNAP
Track	TR	Uncertainty phase	INCERFA†
Track to fix	TF	Unidentified precipitation ( <i>used in automated METAR/SPECI</i> )	UP
Traffic	TFC	Unlimited	UNL
Traffic advisory	TA	Unmanned aircraft	UA
Traffic alert and collision avoidance system resolution advisory ( <i>to be pronounced "TEE-CAS-AR-AY"</i> )	TCAS RA†	Unmanned aircraft system	UAS
Traffic information broadcast by aircraft	TIBA†	Unreliable	UNREL
Transition altitude	TA	Unserviceable	U/S
Transition level	TRL	Until	TIL†
Transmits <i>or</i> transmitter	TRANS	Until advised by . . .	UAB . . .
Trend forecast	TREND†	Until further notice	UFN
Tropical cyclone	TC	Until past . . . ( <i>place</i> )	TIP
Tropical cyclone advisory centre	TCAC	Upper air route	UAR
Tropopause	TROP	Upper area control centre	UAC
True ( <i>preceded by a bearing to indicate reference to True North</i> )	. . . T	Upper control area	UTA
True airspeed	TAS	Upper flight information region	UIR‡
True bearing	QTE	Upper information centre	UIC
Tsunami ( <i>used in aerodrome warnings</i> )	TSUNAMI†	Upward ( <i>tendency in RVR during previous 10 minutes</i> )	U
Tuesday	TUE	<b>V</b>	
Turbulence	TURB	Variable	VRB
Turn altitude	TNA	Variations from the mean wind direction ( <i>preceded and followed by figures in METAR/SPECI, e.g. 350V070</i> )	. . . V . . .

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# Signal for use in the teletypewriter service only.

Variations from the mean wind speed (gusts) <i>(followed by figures in METAR/SPECI and TAF)</i>	G . . .
Vector to final	VTF
Vertical	VER
Vertical navigation <i>(to be pronounced "VEE-NAV")</i>	VNAV†
Vertical path angle	VPA
Vertical speed	VSP
Vertical take-off and landing	VTOL
Vertical visibility <i>(followed by figures in METAR/SPECI and TAF)</i>	VV . . .
Very high frequency [30 to 300 MHz]	VHF‡
Very high frequency direction-finding station	VDF
Very important person	VIP‡
Very long range	VLR
Very low frequency [3 to 30 kHz]	VLF
VHF omnidirectional radio range	VOR‡
Vicinity	VCY
Vicinity of the aerodrome <i>(followed by FG = fog, FC = funnel cloud, SH = shower, PO = dust/sand whirls, BLDU = blowing dust, BLSA = blowing sand, BLSN = blowing snow, DS = duststorm, SS = sandstorm, TS = thunderstorm or VA = volcanic ash, e.g. VCFG = vicinity)</i>	VC . . .
Visibility	VIS
Visibility, cloud and present weather better than prescribed values or conditions <i>(to be pronounced "KAV-OH-KAY")</i>	CAVOK†
Visual approach chart <i>(followed by name/title)</i>	VAC . . .
Visual approach slope indicator systems	VASIS
Visual-aural radio range	VAR
Visual flight rules	VFR‡
Visual manoeuvre with prescribed track	VPT
Visual meteorological conditions	VMC‡
Visual reference to the ground, by	VSA
Volcanic ash	VA
Volcanic ash advisory centre	VAAC
VOR airborne equipment test facility	VOT
VOR and TACAN combination	VORTAC†

**W**

Warning	WRNG
Waterspout	WTSP
Way-point	WPT
We agree or It is correct <i>(to be used in AFS as a procedure signal)</i>	OK*
Weaken or weakening	WKN
Weather	WX
Wednesday	WED
Weight	WT
West or western longitude	W
Westbound	WB
West-north-west	WNW
West-south-west	WSW
What is my distance to your station? or Your distance to my station is <i>(distance figures and units) (to be used in radiotelegraphy as a Q Code)</i>	QGE
White	W
White type of ice formation, opaque	OPA
Wide area augmentation system	WAAS†
Widespread	WDSR
Width or wide	WID
Will comply	WILCO†
Will you give me the position of my station according to the bearings taken by the D/F stations which you control? or The position of your station according to the bearings taken by the D/F stations that I control was . . . latitude . . . longitude <i>(or other indication of position), class . . . at . . . hours (to be used in radiotelegraphy as a Q Code)</i>	QTF
Will you indicate the TRUE track to reach you? or The TRUE track to reach me is . . . degrees at . . . hours <i>(to be used in radiotelegraphy as a Q Code)</i>	QUJ
Will you relay to . . . free of charge? or I will relay to . . . free of charge <i>(to be used in AFS as a Q Code)</i>	QSP
Wind	WIND
Wind direction indicator	WDI
Wind shear	WS

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# Signal for use in the teletypewriter service only.

Wind speed	WSPD	World Geodetic System — 1984	WGS-84
Wing bar lights	WBAR	Worldwide web	WWW
With effect from <i>or</i> effective from	WEF		
With immediate effect <i>or</i> effective immediately	WIE		
Within	WI	<b>Y</b>	
Without	WO	Yellow	Y
Work in progress	WIP	Yellow caution zone ( <i>runway lighting</i> )	YCZ
World Aeronautical Chart — ICAO 1:1 000 000 ( <i>followed by name/title</i> )	WAC . . .	Yes <i>or</i> affirm <i>or</i> affirmative <i>or</i> that is correct	AFM
World area forecast centre	WAFC	Yes (affirmative) ( <i>to be used in AFS as a procedure signal</i> )	YES*
		Your	YR

---

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

\* Signal is also available for use in communicating with stations of the maritime mobile service.

# Signal for use in the teletypewriter service only.



# ABBREVIATIONS FOR IDENTIFYING AERONAUTICAL FIXED SERVICE (AFS) MESSAGES

Abbreviations for use as the first word of the text of a message

## ENCODE

### Aircraft Accident Notification Messages

Notification of an aircraft accident      ACCID

### Air Traffic Services Messages

Acceptance	ACP
Alerting	ALR
Arrival	ARR
Coordination	CDN
Current flight plan	CPL
Delay	DLA
Departure	DEP
Estimate	EST
Filed flight plan	FPL
Flight plan cancellation	CNL
Logical acknowledgement	LAM
Modification	CHG
Radio communication failure	RCF
Request flight plan	RQP
Request supplementary flight plan	RQS
Supplementary flight plan	SPL

### Meteorological Messages

Data designators for meteorological bulletins are given in the *Manual of Aeronautical Meteorological Practice* (Doc 8896)

### Other messages

Notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations	NOTAM
--	-------

Special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format	SNOWTAM
Service message <i>(to be used by AFS stations only)</i>	SVC





## ABBREVIATIONS AND TERMS TO BE TRANSMITTED AS SPOKEN WORDS WHEN USED IN RADIOTELEPHONY

### DECODE

ACARS	<i>(to be pronounced "AY-CARS")</i> Aircraft communication addressing and reporting system	GAGAN	GPS and geostationary earth orbit augmented navigation
ACAS	Airborne collision avoidance system	GBAS	<i>(to be pronounced "GEE-BAS")</i> Ground-based augmentation system
ADIZ	<i>(to be pronounced "AY-DIZ")</i> Air defence identification zone	GLONASS	<i>(to be pronounced "GLO-NAS")</i> Global orbiting navigation satellite system
AIREP	Air-report	GRAS	<i>(to be pronounced "GRASS")</i> Ground-based regional augmentation system
AIRMET	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations	IDENT	Identification
ALERFA	Alert phase	INCERFA	Uncertainty phase
APAPI	<i>(to be pronounced "AY-PAPI")</i> Abbreviated precision approach path indicator	INFO	Information
ATIS	Automatic terminal information service	LNAV	<i>(to be pronounced "EL-NAV")</i> Lateral navigation
AT-VASIS	<i>(to be pronounced "AY-TEE-VASIS")</i> Abbreviated T visual approach slope indicator system	LORAN	LORAN <i>(long range air navigation system)</i>
AVGAS	Aviation gasoline	MET	Meteorological <i>or</i> meteorology
BARO-VNAV	<i>(to be pronounced "BAA-RO-VEE-NAV")</i> Barometric vertical navigation	METAR	Aviation routine weather report <i>(in aeronautical meteorological code)</i>
BASE	Cloud base	MOPS	Minimum operational performance standards
CAVOK	<i>(to be pronounced "KAV-OH-KAY")</i> Visibility, cloud and present weather better than prescribed values or conditions	MSAS	<i>(to be pronounced "EM-SAS")</i> Multi-functional transport satellite (MTSAT) satellite-based augmentation system
CIDIN	Common ICAO data interchange network	NASC	National AIS system centre
D-ATIS	<i>(to be pronounced "DEE-ATIS")</i> Data link automatic terminal information service	NIL	None <i>or</i> I have nothing to send you
DETRESFA	Distress phase	NOSIG	No significant change <i>(used in trend-type landing forecast)</i>
EFIS	<i>(to be pronounced "EE-FIS")</i> Electronic flight instrument system	NOTAM	A notice distributed by means of telecommunication containing information concerning the establishment, conditions or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations
EGNOS	<i>(to be pronounced "EGG-NOS")</i> European geostationary navigation overlay service		
ELBA	Emergency location beacon — aircraft		
FRONT	Front <i>(relating to weather)</i>	OLDI	On-line data interchange
FROST	Frost <i>(used in aerodrome warnings)</i>	OPMET	Operational meteorological <i>(information)</i>

OPS	Operations	SPECIAL	Special meteorological report ( <i>in abbreviated plain language</i> )
PAPI	Precision approach path indicator	SPOT	Spot wind
PROB	Probability	STAR	Standard instrument arrival
RAIM	Receiver autonomous integrity monitoring	TACAN	UHF tactical air navigation system
RASC	Regional AIS system centre	TAF	Aerodrome forecast
RIME	Rime ( <i>used in aerodrome warnings</i> )	TAIL	Tail wind
RNAV	( <i>to be pronounced "AR-NAV"</i> ) Area navigation	TCAS RA	( <i>to be pronounced "TEE-CAS-AR-AY"</i> ) Traffic alert and collision avoidance system resolution advisory
ROBEX	Regional OPMET bulletin exchange ( <i>scheme</i> )	TEMPO	Temporary <i>or</i> temporarily
SATCOM	Satellite communication	TIBA	Traffic information broadcast by aircraft
SBAS	( <i>to be pronounced "ESS-BAS"</i> ) Satellite-based augmentation system	TIL	Until
SELCAL	Selective calling system	TOP	Cloud top
SID	Standard instrument departure	TREND	Trend forecast
SIGMET	Information concerning en-route weather phenomena which may affect the safety of aircraft operations	TSUNAMI	Tsunami ( <i>used in aerodrome warnings</i> )
SNOWTAM	A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format	T-VASIS	( <i>to be pronounced "TEE-VASIS"</i> ) T visual approach slope indicator system
SPECI	Aviation selected special weather report ( <i>in aeronautical meteorological code</i> )	VNAV	( <i>to be pronounced "VEE-NAV"</i> ) Vertical navigation
		VOLMET	Meteorological information for aircraft in flight
		VORTAC	VOR and TACAN combination
		WAAS	Wide area augmentation system
		WILCO	Will comply

## ABBREVIATIONS AND TERMS TO BE TRANSMITTED AS SPOKEN WORDS WHEN USED IN RADIOTELEPHONY

### ENCODE

Abbreviated precision approach path indicator <i>(to be pronounced "AY-PAPI")</i>	APAPI	Front <i>(relating to weather)</i>	FRONT
		Frost <i>(used in aerodrome warnings)</i>	FROST
Abbreviated T visual approach slope indicator system <i>(to be pronounced "AY-TEE-VASIS")</i>	AT-VASIS	Global orbiting navigation satellite system <i>(to be pronounced "GLO-NAS")</i>	GLONASS
Aerodrome forecast	TAF	GPS and geostationary earth orbit augmented navigation	GAGAN
Airborne collision avoidance system	ACAS	Ground-based augmentation system <i>(to be pronounced "GEE-BAS")</i>	GBAS
Aircraft communication addressing and reporting system <i>(to be pronounced "AY-CARS")</i>	ACARS	Ground-based regional augmentation system <i>(to be pronounced "GRASS")</i>	GRAS
Air defence identification zone <i>(to be pronounced "AY-DIZ")</i>	ADIZ	Identification	IDENT
Air-report	AIREP	Information	INFO
Alert phase	ALERFA	Information concerning en-route weather phenomena which may affect the safety of aircraft operations	SIGMET
Area navigation <i>(to be pronounced "AR-NAV")</i>	RNAV	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations	AIRMET
Automatic terminal information service	ATIS	Lateral navigation <i>(to be pronounced "EL-NAV")</i>	LNAV
Aviation gasoline	AVGAS	LORAN <i>(long range air navigation system)</i>	LORAN
Aviation routine weather report <i>(in aeronautical meteorological code)</i>	METAR	Meteorological or meteorology	MET
Aviation selected special weather report <i>(in aeronautical meteorological code)</i>	SPECI	Meteorological information for aircraft in flight	VOLMET
Barometric vertical navigation <i>(to be pronounced "BAA-RO-VEE-NAV")</i>	BARO-VNAV	Minimum operational performance standards	MOPS
Cloud base	BASE	Multi-functional transport satellite (MTSAT) satellite-based augmentation system <i>(to be pronounced "EM-SAS")</i>	MSAS
Cloud top	TOP	National AIS system centre	NASC
Common ICAO data interchange network	CIDIN	None or I have nothing to send you	NIL
Data link automatic terminal information service <i>(to be pronounced "DEE-ATIS")</i>	D-ATIS	No significant change <i>(used in trend-type landing forecast)</i>	NOSIG
Distress phase	DETRESFA		
Electronic flight instrument system <i>(to be pronounced "EE-FIS")</i>	EFIS		
Emergency location beacon — aircraft	ELBA		
European geostationary navigation overlay service <i>(to be pronounced "EGG-NOS")</i>	EGNOS		

Notice distributed by means of telecommunication containing information concerning the establishment, conditions or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations	NOTAM	Spot wind	SPOT
		Standard instrument arrival	STAR
		Standard instrument departure	SID
		Tail wind	TAIL
		Temporary <i>or</i> temporarily	TEMPO
		Traffic alert and collision avoidance system resolution advisory ( <i>to be pronounced "TEE-CAS-AR-AY"</i> )	TCAS RA
		Traffic information broadcast by aircraft	TIBA
On-line data interchange	OLDI	Trend forecast	TREND
Operational meteorological ( <i>information</i> )	OPMET	Tsunami ( <i>used in aerodrome warnings</i> )	TSUNAMI
Operations	OPS	T visual approach slope indicator system ( <i>to be pronounced "TEE-VASIS"</i> )	T-VASIS
Precision approach path indicator	PAPI		
Probability	PROB	UHF tactical air navigation system	TACAN
Receiver autonomous integrity monitoring	RAIM	Uncertainty phase	INCERFA
Regional AIS system centre	RASC	Until	TIL
Regional OPMET bulletin exchange ( <i>scheme</i> )	ROBEX	Vertical navigation ( <i>to be pronounced "VEE-NAV"</i> )	VNAV
Rime ( <i>used in aerodrome warnings</i> )	RIME	Visibility, cloud and present weather better than prescribed values or conditions ( <i>to be pronounced "KAV-OH-KAY"</i> )	CAVOK
Satellite-based augmentation system ( <i>to be pronounced "ESS-BAS"</i> )	SBAS	VOR and TACAN combination	VORTAC
Satellite communication	SATCOM		
Selective calling system	SELCAL	Wide area augmentation system	WAAS
Special meteorological report ( <i>in abbreviated plain language</i> )	SPECIAL	Will comply	WILCO
Special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format	SNOWTAM		

**ABBREVIATIONS AND TERMS TO BE TRANSMITTED USING  
THE INDIVIDUAL LETTERS IN NON-PHONETIC FORM  
WHEN USED IN RADIOTELEPHONY**

**DECODE**

ACC	Area control centre <i>or</i> area control	MLS	Microwave landing system
ADF	Automatic direction-finding equipment	NDB	Non-directional radio beacon
ADS-B	Automatic dependent surveillance — broadcast	NOZ	Normal operating zone
ADS-C	Automatic dependent surveillance — contract	NTZ	No transgression zone
AFTN	Aeronautical fixed telecommunication network	PAR	Precision approach radar
ATA	Actual time of arrival	PDC	Pre-departure clearance
ATC	Air traffic control ( <i>in general</i> )	PSR	Primary surveillance radar
ATD	Actual time of departure	QDM	Magnetic heading ( <i>zero wind</i> )
CB	( <i>to be pronounced “CEE BEE”</i> ) Cumulonimbus	QFE	Atmospheric pressure at aerodrome elevation ( <i>or at runway threshold</i> )
CPDLC	Controller-pilot data link communications	QNH	Altimeter sub-scale setting to obtain elevation when on the ground
DME	Distance measuring equipment	RCP	Required communication performance
ETA	Estimated time of arrival <i>or</i> estimating arrival	RNP	Required navigation performance
ETD	Estimated time of departure <i>or</i> estimating departure	RPI	Radar position indicator
FIR	Flight information region	RVR	Runway visual range
FMS	Flight management system	RVSM	Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410
GCA	Ground controlled approach system <i>or</i> ground controlled approach	SSR	Secondary surveillance radar
GLS	GBAS landing system	TMA	Terminal control area
GNSS	Global navigation satellite system	UHF	Ultra high frequency [300 to 3 000 MHz]
GPS	Global positioning system	UIR	Upper flight information region
GPWS	Ground proximity warning system	UTC	Coordinated universal time
HF	High frequency [3 000 to 30 000 KHz]	VFR	Visual flight rules
IFR	Instrument flight rules	VHF	Very high frequency [30 to 300 MHz]
ILS	Instrument landing system	VIP	Very important person
IMC	Instrument meteorological conditions	VMC	Visual meteorological conditions
		VOR	VHF omnidirectional radio range



**ABBREVIATIONS AND TERMS TO BE TRANSMITTED USING  
THE INDIVIDUAL LETTERS IN NON-PHONETIC FORM  
WHEN USED IN RADIOTELEPHONY**

**ENCODE**

Actual time of arrival	ATA	High frequency [3 000 to 30 000 KHz]	HF
Actual time of departure	ATD		
Aeronautical fixed telecommunication network	AFTN	Instrument flight rules	IFR
Air traffic control ( <i>in general</i> )	ATC	Instrument landing system	ILS
Altimeter sub-scale setting to obtain elevation when on the ground	QNH	Instrument meteorological conditions	IMC
Area control centre <i>or</i> area control	ACC	Magnetic heading ( <i>zero wind</i> )	QDM
Atmospheric pressure at aerodrome elevation ( <i>or at runway threshold</i> )	QFE	Microwave landing system	MLS
Automatic dependent surveillance — broadcast	ADS-B	No transgression zone	NTZ
Automatic dependent surveillance — contract	ADS-C	Non-directional radio beacon	NDB
Automatic direction-finding equipment	ADF	Normal operating zone	NOZ
Controller-pilot data link communications	CPDLC	Precision approach radar	PAR
Coordinated universal time	UTC	Pre-departure clearance	PDC
Cumulonimbus ( <i>to be pronounced "CEE BEE"</i> )	CB	Primary surveillance radar	PSR
Distance measuring equipment	DME	Radar position indicator	RPI
Estimated time of arrival <i>or</i> estimating arrival	ETA	Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410	RVSM
Estimated time of departure <i>or</i> estimating departure	ETD	Required communication performance	RCP
Flight information region	FIR	Required navigation performance	RNP
Flight management system	FMS	Runway visual range	RVR
GBAS landing system	GLS	Secondary surveillance radar	SSR
Global navigation satellite system	GNSS	Terminal control area	TMA
Global positioning system	GPS	Ultra high frequency [300 to 3 000 MHz]	UHF
Ground controlled approach system <i>or</i> ground controlled approach	GCA	Upper flight information region	UIR
Ground proximity warning system	GPWS	Very high frequency [30 to 300 MHz]	VHF
		Very important person	VIP
		VHF omnidirectional radio range	VOR
		Visual flight rules	VFR
		Visual meteorological conditions	VMC





## DESIGNATION OF TYPICAL RADIOCOMMUNICATION EMISSIONS

<i>Type of modulation of main carrier</i>	<i>Type of transmission</i>	<i>Supplementary characteristics</i>	<i>Abbreviation</i>
None	Continuous wave	—	NON
Amplitude modulation	Telegraphy without the use of a modulating audio frequency (by on-off keying)	—	A1A
	Telegraphy by the on-off keying of an amplitude-modulating audio frequency or audio frequencies, or by the on-off keying of the modulated emission (special case: an unkeyed emission amplitude modulated)	—	A2A
	Telephony	Double sideband	A3A
		Single sideband, reduced carrier	R3E
		Single sideband, full carrier	H3E
		Single sideband, suppressed carrier	J3E
		Two independent sidebands containing quantized or digital information	B7E
		Two independent sidebands containing analogue information	B8E
	Facsimile (by sub-carrier frequency modulation)	—	A4
		Single sideband, reduced carrier	R3C
		Single sideband, suppressed carrier	J3C
	Television	Vestigial sideband	C3F
	Multichannel voice-frequency telegraphy	Single sideband, reduced carrier	R7B
	Cases not covered by the above, e.g. a combination of telephony and telegraphy	Two independent sidebands	B9W
Frequency ( <i>or phase</i> ) modulation	Telegraphy by frequency shift keying without the use of a modulating audio frequency: one of two frequencies being emitted at any instant	—	F1A
	Telegraphy by the on-off keying of a frequency modulating audio frequency or by the on-off keying of a frequency modulated emission (special case: an unkeyed emission, frequency modulated)	—	F2A
	Telephony	—	F3E
	Facsimile by direct frequency modulation of the carrier	—	F1C
	Television	—	F3F

<i>Type of modulation of main carrier</i>	<i>Type of transmission</i>	<i>Supplementary characteristics</i>	<i>Abbreviation</i>
	Four-frequency duplex telegraphy	—	F7B
Pulse modulation	A pulsed carrier without any modulation intended to carry information (e.g. radar)	—	P0N
	Telegraphy by the on-off keying of a pulsed carrier without the use of a modulating audio frequency	—	P1D
<i>Note. — Emissions where the main character is directly modulated by a signal which has been coded into quantized form (e.g. pulse code modulation) should be designated by the appropriate emission under Amplitude or Frequency modulation, above.</i>			
	Cases not covered by the above in which the main carrier is pulse modulated		WXX

*Note. — For additional assistance, see ITU Radio Regulations, Appendix 1 and Recommendation ITU-R SM.1138.*

## SIGNAL REPORTING CODES

**Codes for use in the international aeronautical telecommunication service  
for the preparation of messages relating to monitoring, propagation  
disturbance and radio interference reports**

### Introduction

1. A signal report shall consist of the code word SINPO or SINPFEMO followed by a five- or eight-figure group respectively rating the five or eight characteristics of the signal code.
2. The letter X shall be used instead of a numeral for characteristics not rated.
3. Although the code word SINPFEMO is intended for telephony, either code word may be used for telegraphy or telephony as may be desired.

### SINPO Signal Reporting Code

	S	I	N	P	O
Rating scale	Signal strength	Degrading effect of			Overall readability (QRK)
		Interference (QRM)	Noise (QRN)	Propagation disturbance	
5	Excellent	Nil	Nil	Nil	Excellent
4	Good	Slight	Slight	Slight	Good
3	Fair	Moderate	Moderate	Moderate	Fair
2	Poor	Severe	Severe	Severe	Poor
1	Barely audible	Extreme	Extreme	Extreme	Unusable

### SINPFEMO Signal Reporting Code

	S	I	N	P	F	E	M	O
Rating scale	Signal strength	Degrading effect of			Frequency of fading	Modulation		Overall rating
		Interference (QRM)	Noise (QRN)	Propagation disturbance		Quality	Depth	
5	Excellent	Nil	Nil	Nil	Nil	Excellent	Maximum	Excellent
4	Good	Slight	Slight	Slight	Slow	Good	Good	Good
3	Fair	Moderate	Moderate	Moderate	Moderate	Fair	Fair	Fair
2	Poor	Severe	Severe	Severe	Fast	Poor	Poor or Nil	Poor
1	Barely audible	Extreme	Extreme	Extreme	Very fast	Very poor	Continuously overmodulated	Unusable



# THE NOTAM CODE

## PREFACE

*(See 5.2.2 and Appendix 6 of Annex 15)*

### 1. Introduction

The NOTAM Code is provided to enable the coding of information regarding the establishment, condition or change of radio aids, aerodromes and lighting facilities, dangers to aircraft, or search and rescue facilities. The NOTAM Code is a comprehensive description of information contained in NOTAM. It serves as an important criterion for storage and retrieval of information, as well as for deciding whether an item is of operational significance or not. It also establishes the relevance of the NOTAM to the various types of flight operations and determines whether it must therefore be part of a pre-flight information bulletin. In addition, it assists in specifying those items which are subject to immediate notification processes. The NOTAM Code also standardizes the presentation of the related plain-language text required at Item E) of the NOTAM Format as contained in Appendix 6 of Annex 15. Thus, the NOTAM Code is the basis for determination of the qualifiers TRAFFIC, PURPOSE and SCOPE used in Q (Qualifiers) line and the related text to appear in Item E) of the NOTAM Format.

### 2. Procedures

The transmission of NOTAM over the international aeronautical telecommunication service is governed by the appropriate sections of Annex 10, Volume II, and Annex 15. The former contains information on the acceptability of and priority to be accorded to NOTAM for transmission over the aeronautical fixed service (AFS), the latter full instructions on the textual format and contents of NOTAM.

### 3. Composition

#### **General**

3.1 All NOTAM Code groups contain a total of five (5) letters. The first letter of the code group is always the letter Q to indicate that it is a code abbreviation for use in the composition of NOTAM. The letter Q has been chosen to avoid conflict with any assigned radio call sign.

3.2 The second and third letters identify the subject reported upon and the fourth and fifth letters denote its status of operation. The code identifying the subject or denoting its status of operation is, whenever possible, self-evident. Where more than one subject could be identified by the same self-evident code, the most important subject is chosen.

3.3 If the subject of the NOTAM is not listed in the NOTAM Code, insert "XX" as the second and third letters.

3.4 If the condition of the subject is not listed in the NOTAM Code, insert "XX" as the fourth and fifth letters.

3.5 When a NOTAM is issued containing a checklist of valid NOTAM, use KKKK as the second, third, fourth and fifth letters. When a NOTAM containing operationally significant information is issued in accordance with Appendix 4 and Chapter 6 of Annex 15 and when it is used to announce the existence of AIRAC AIP amendments or supplements (trigger NOTAM), insert "TT" as the fourth and fifth letters.

**Classification by subject (second and third letters)**

3.6 Facilities, services and other information which require coding have been classified by subject into sections and subsections. The second letter of the code group, which may be any letter of the alphabet except Q, indicates the subject subsections as follows:

*AGA (Aerodromes)*

.....	<u>L</u> IGHTING facilities	— L
.....	<u>M</u> OVEMENT and landing area	— M
.....	<u>F</u> ACILITIES and services	— F

*ATM (Air Traffic Management)*

.....	<u>A</u> IRSPACE organization	— A
.....	air traffic and VOLMET <u>S</u> ERVICES	— S
.....	air traffic <u>P</u> ROCEDURES	— P

*CNS (Communications, Navigation and Surveillance)*

.....	<u>C</u> OMMUNICATION and radar facilities	— C
.....	<u>I</u> NSTRUMENT and microwave landing systems	— I
.....	<u>G</u> NSS services	— G
.....	terminal and en-route <u>N</u> AVIGATION facilities	— N

*Navigation Warnings*

.....	airspace <u>R</u> ESTRICTIONS	— R
.....	<u>W</u> ARNINGS	— W

*Other Information*

.....	<u>O</u> THER information	— O
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**Classification by status (fourth and fifth letters)**

3.7 The fourth letter of the code group, which may be any letter of the alphabet except Q, indicates status subsections as follows:

A	<u>A</u> VAILABILITY
C	<u>C</u> HANGES
H	<u>H</u> AZARD conditions
L	<u>L</u> IMITATIONS
XX	Other

3.8 The following fourth and fifth letters of the NOTAM Code should be used in NOTAM cancellations:

AK:	RESUMED NORMAL OPERATION
AL:	OPERATIVE (OR REOPERATIVE) SUBJECT TO PREVIOUSLY PUBLISHED LIMITATIONS/CONDITIONS
AO:	OPERATIONAL
CC:	COMPLETED
XX:	PLAIN LANGUAGE

#### 4. Significations/uniform abbreviated phraseology

The significations/approved uniform abbreviated phraseology assigned to NOTAM Code groups, as required for use in Item E) of the NOTAM Format (Annex 15, Appendix 6), are to be amplified or completed where necessary by the addition of appropriate location indicators, name of station, geographical coordinates, abbreviations, frequencies, call signs, figures and plain language. ICAO abbreviations are to be used in preference to plain language wherever possible. In order to facilitate the dissemination of NOTAM by reducing the transmission time over telecommunication channels, eliminate translation and provide a suitable pre-flight information bulletin entry, the approved uniform abbreviated phraseology assigned to each signification of a two-letter combination in the NOTAM Code — Decode part is to be used in preference to significations wherever possible.

*Note.— In addition, to meet certain requirements, a State may wish to provide a translation of the approved uniform phraseology in another language.*

#### 5. Text in parentheses

The information necessary to complete a signification/uniform abbreviated phraseology, as indicated between parentheses, shall be given as applicable.

#### 6. Amplification of significations/uniform abbreviated phraseology

The following is applicable to amplification of significations/uniform abbreviated phraseology:

- a) amplifications relating to significations/uniform abbreviated phraseology of the second and third letters (subject of the NOTAM) must *precede* signification/uniform abbreviated phraseology of the NOTAM Code;
- b) amplifications relating to significations/uniform abbreviated phraseology of the fourth and fifth letters (status of operation) must *follow* signification/uniform abbreviated phraseology of the NOTAM Code.

*Examples (as applicable to Item E) of the NOTAM Format)*

- a) The touchdown zone lights of RWY 27 are not available due to power failure.  
E) RWY 27 RTZL NOT AVBL DUE PWR FAILURE

- b) The taxiway edge lights of taxiway B are obscured by snow.  
E) TWY B EDGE LGT OBSCURED BY SN
- c) On the strip of RWY 09/27 snow banks to a height of 15 ft exist.  
E) RWY 09/27 STRIP SN BANKS HGT 15 FT
- d) The minimum sector altitude in the sector 90° to 180° inbound VOR ident DOM changed to 3 600 ft MSL.  
E) 90 TO 180 DEG INBD VOR DOM MSA CHANGED 3 600 FT MSL

## 7. Use of NOTAM Code groups

7.1 Five-letter NOTAM Code groups are to be used in conjunction with the NOTAM Format (Annex 15, 5.2.1, 5.3.2 and Appendix 6). They also constitute the basis for determination of the qualifiers Traffic, Purpose and Scope. Both NOTAM Code groups and NOTAM qualifiers are to be inserted in Q (Qualifiers) line of the NOTAM Format.

*Note.— The most commonly used NOTAM Code groups and their respective relation with the qualifiers Traffic, Purpose and Scope are presented in the NOTAM Selection Criteria tables (Doc 8126 — Aeronautical Information Services Manual, Attachment to Appendix C).*

7.2 Five-letter NOTAM Code groups are formed in the following manner:

### FIRST LETTER

The letter Q (see 3.1).

### SECOND AND THIRD LETTERS

The appropriate combination of two letters selected from the “Second and Third Letters” section of the NOTAM Code to identify the facility, service or danger to aircraft being reported upon. (See 3.3, 3.5 and 3.6.)

### FOURTH AND FIFTH LETTERS

The appropriate combination of two letters selected from the “Fourth and Fifth Letters” section of the NOTAM Code to denote the status of operation of the facility, service or danger to aircraft reported upon. (See 3.4, 3.5 and 3.7.)

### Examples

*Note.— In the examples of NOTAM below, the letters Q to G inclusive, each followed by a closing parenthesis, identify an item in the NOTAM Format (Annex 15, Appendix 6).*

- a) The distance measuring equipment (DME), at Paris/Orly, will not be available from the 31st day of March 1992 at 2359 UTC until the 1st day of April 1992 at 0600 UTC.



NOTAM:

Q) LFFF/QNDAU/IV/BO/AE/ . . .

A) LFPO B) 9203312359 C) 9204010600

E) DME NOT AVBL

*Meaning of NOTAM:*

Item Q):

- LFFF: ICAO location indicator identifying Paris FIR in which the facility reported on is located;
- QNDAU: The letter “Q” identifies the five-letter code group as the NOTAM Code group. Second and third letters “ND” identifying “distance measuring equipment” and fourth and fifth letters “AU” denoting that the facility is “not available”;
- IV: Letters identifying that the information affects both IFR and VFR traffic;
- BO: Letters identifying that NOTAM is selected for pre-flight information bulletins entry and that it is operationally significant information for IFR flights;
- AE: Letters identifying that facility is serving a dual purpose as terminal and en-route aid.

Item A):

- LFPO: ICAO location indicator identifying Paris/Orly, the location of the facility being reported on.

Item B):

- 9203312359: Date/time group of the beginning of the period of validity in which the facility is not available.

Item C):

- 9204010600: Date/time group of the end of the period of validity in which the facility is not available.

Item E):

- DME NOT AVBL: Plain-language entry using ICAO abbreviations.

- b) With immediate effect, the VHF omnidirectional radio range on frequency 116.9 MHz at New York/La Guardia will be out of service until approximately the 13th day of November 1992 at 0900 UTC.

NOTAM:

Q) KZWY/QNVAS/IV/BO/AE/ . . .

A) KLGA B) 9211020615 C) 9211130900 EST

E) 116.9 MHZ VOR U/S

*Note.— In the above example, the amplification (i.e. VOR frequency 116.9 MHz) relating to the second and third letters precedes the NOTAM Code signification.*

- c) Runway 30 at Stockholm/Bromma is permanently closed for VFR operations.

NOTAM:

- Q) ESOS/QMLV/V/NB/A/ . . .  
A) ESSB B) 9210221430 C) PERM  
E) RWY 30 CLSD TO VFR OPS

- d) The VHF omnidirectional radio range on frequency 116.30 MHz station VOZICE in PRAHA FIR will be out of service from the 10th day of November 1992 at 0800 UTC until the 13th day of November 1992 at 0900 UTC.

NOTAM:

- Q) LKAA/QNVAS/IV/BO/E/ . . .  
A) LKAA B) 9211100800 C) 9211130900  
E) VOZ 116.30 MHZ VOR U/S

*Note.— In the above example, the amplification (i.e. station identification VOZ and VOR frequency 116.30 MHz) relating to the second and third letters precedes the NOTAM Code signification.*

- e) In the Montreal FIR, gunfiring will take place on the 21st day of February 1993 from 0800 UTC until 1100 UTC within an area of 10 NM radius around the location 45°37' North, 74°00' West from the surface up to an altitude of 6 100 m (20 000 ft) MSL.

NOTAM:

- Q) CZUL/QWMLW/IV/BO/W/000/200/4537N07400W010  
A) CZUL B) 9302210800 C) 9302211100  
E) GUN FRNG WILL TAKE PLACE RADIUS 10 NM AROUND 4537N07400W  
F) SFC G) 6100 M (20000 FT) MSL
-

## THE NOTAM CODE — DECODE

### SECOND AND THIRD LETTERS

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
AGA		
Lighting facilities (L)		
LA	Approach lighting system <i>(specify runway and type)</i>	als
LB	Aerodrome beacon	abn
LC	Runway centre line lights <i>(specify runway)</i>	rcll
LD	Landing direction indicator lights	ldi lgt
LE	Runway edge lights <i>(specify runway)</i>	redl
LF	Sequenced flashing lights <i>(specify runway)</i>	sequenced flg lgt
LG	Pilot-controlled lighting	pcl
LH	High intensity runway lights <i>(specify runway)</i>	high intst rwy lgt
LI	Runway end identifier lights <i>(specify runway)</i>	rwy end id lgt
LJ	Runway alignment indicator lights <i>(specify runway)</i>	rai lgt
LK	Category II components of approach lighting system <i>(specify runway)</i>	cat II components als
LL	Low intensity runway lights <i>(specify runway)</i>	low intst rwy lgt
LM	Medium intensity runway lights <i>(specify runway)</i>	medium intst rwy lgt
LP	Precision approach path indicator <i>(specify runway)</i>	papi
LR	All landing area lighting facilities	ldg area lgt fac
LS	Stopway lights <i>(specify runway)</i>	stwl
LT	Threshold lights <i>(specify runway)</i>	thr lgt
LU	Helicopter approach path indicator	hapi
LV	Visual approach slope indicator system <i>(specify type and runway)</i>	vasis
LW	Heliport lighting	heliport lgt
LX	Taxiway centre line lights <i>(specify taxiway)</i>	twy cl lgt
LY	Taxiway edge lights <i>(specify taxiway)</i>	twy edge lgt
LZ	Runway touchdown zone lights <i>(specify runway)</i>	rtzl
AGA		
Movement and landing area (M)		
MA	Movement area	mov area
MB	Bearing strength <i>(specify part of landing area or movement area)</i>	bearing strength
MC	Clearway <i>(specify runway)</i>	cwy
MD	Declared distances <i>(specify runway)</i>	declared dist
MG	Taxiing guidance system	tgts
MH	Runway arresting gear <i>(specify runway)</i>	rag
MK	Parking area	prkg area
MM	Daylight markings <i>(specify threshold, centre line, etc.)</i>	day markings
MN	Apron	apron
MO	Stopbar <i>(specify taxiway)</i>	stopbar
MP	Aircraft stands <i>(specify)</i>	acft stand
MR	Runway <i>(specify runway)</i>	rwy
MS	Stopway <i>(specify runway)</i>	swy
MT	Threshold <i>(specify runway)</i>	thr

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
MU	Runway turning bay ( <i>specify runway</i> )	rwyt turning bay
MW	Strip/shoulder ( <i>specify runway</i> )	strip/shoulder
MX	Taxiway(s) ( <i>specify</i> )	twy
MY	Rapid exit taxiway ( <i>specify</i> )	rapid exit twy
AGA		
Facilities and services (F)		
FA	Aerodrome	ad
FB	Friction measuring device ( <i>specify type</i> )	friction measuring device
FC	Ceiling measurement equipment	ceiling measurement eqpt
FD	Docking system ( <i>specify AGNIS, BOLDS, etc.</i> )	dckg system
FE	Oxygen ( <i>specify type</i> )	oxygen
FF	Firefighting and rescue	fire and rescue
FG	Ground movement control	gnd mov ctl
FH	Helicopter alighting area/platform	hel alighting area
FI	Aircraft de-icing ( <i>specify</i> )	acft de-ice
FJ	Oils ( <i>specify type</i> )	oil
FL	Landing direction indicator	ldi
FM	Meteorological service ( <i>specify type</i> )	met
FO	Fog dispersal system	fg dispersal
FP	Heliport	heliport
FS	Snow removal equipment	sn removal eqpt
FT	Transmissometer ( <i>specify runway and, where applicable, designator(s) of transmissometer(s)</i> )	transmissometer
FU	Fuel availability	fuel avbl
FW	Wind direction indicator	wdi
FZ	Customs/immigration	cust/immigration
ATM		
Airspace organization (A)		
AA	Minimum altitude ( <i>specify en-route/crossing/safe</i> )	mnm alt
AC	Control zone	ctr
AD	Air defence identification zone	adiz
AE	Control area	cta
AF	Flight information region	fir
AH	Upper control area	uta
AL	Minimum usable flight level	mnm usable fl
AN	Area navigation route	rnav rte
AO	Oceanic control area	oca
AP	Reporting point ( <i>specify name or coded designator</i> )	rep
AR	ATS route ( <i>specify</i> )	ats rte
AT	Terminal control area	tma
AU	Upper flight information region	uir
AV	Upper advisory area	uda
AX	Significant point	sig
AZ	Aerodrome traffic zone	atz

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
ATM		
Air traffic and VOLMET services (S)		
SA	Automatic terminal information service	atis
SB	ATS reporting office	aro
SC	Area control centre	acc
SE	Flight information service	fis
SF	Aerodrome flight information service	afis
SL	Flow control centre	flow ctl centre
SO	Oceanic area control centre	oac
SP	Approach control service	app
SS	Flight service station	fss
ST	Aerodrome control tower	twr
SU	Upper area control centre	uac
SV	VOLMET broadcast	volmet
SY	Upper advisory service ( <i>specify</i> )	upper advisory ser
ATM		
Air traffic procedures (P)		
PA	Standard instrument arrival ( <i>specify route designator</i> )	star
PB	Standard VFR arrival	std vfr arr
PC	Contingency procedures	contingency proc
PD	Standard instrument departure ( <i>specify route designator</i> )	sid
PE	Standard VFR departure	std vfr dep
PF	Flow control procedure	flow ctl proc
PH	Holding procedure	hldg proc
PI	Instrument approach procedure ( <i>specify type and runway</i> )	instr apch proc
PK	VFR approach procedure	vfr apch proc
PL	Flight plan processing, filing and related contingency	fpl
PM	Aerodrome operating minima ( <i>specify procedure and amended minimum</i> )	opr minima
PN	Noise operating restrictions	noise opr restrictions
PO	Obstacle clearance altitude and height ( <i>specify procedure</i> )	oca och
PR	Radio failure procedure	rdo failure proc
PT	Transition altitude or transition level ( <i>specify</i> )	ta/trl
PU	Missed approach procedure ( <i>specify runway</i> )	missed apch proc
PX	Minimum holding altitude ( <i>specify fix</i> )	mmn hldg alt
PZ	ADIZ procedure	adiz proc
CNS		
Communications and surveillance facilities (C)		
CA	Air/ground facility ( <i>specify service and frequency</i> )	a/g fac
CB	Automatic dependent surveillance — broadcast ( <i>details</i> )	ads-b
CC	Automatic dependent surveillance — contract ( <i>details</i> )	ads-c
CD	Controller-pilot data link communications ( <i>details</i> )	cpdlc
CE	En-route surveillance radar	rsr
CG	Ground controlled approach system	gca
CL	Selective calling system	selcal
CM	Surface movement radar	smr

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
CP	Precision approach radar ( <i>specify runway</i> )	par
CR	Surveillance radar element of precision approach radar system ( <i>specify wavelength</i> )	sre
CS	Secondary surveillance radar	ssr
CT	Terminal area surveillance radar	tar

## CNS

## Instrument and microwave landing systems (I)

IC	Instrument landing system ( <i>specify runway</i> )	ils
ID	DME associated with ILS	ils dme
IG	Glide path (ILS) ( <i>specify runway</i> )	ils gp
II	Inner marker (ILS) ( <i>specify runway</i> )	ils im
IL	Localizer (ILS) ( <i>specify runway</i> )	ils llz
IM	Middle marker (ILS) ( <i>specify runway</i> )	ils mm
IN	Localizer ( <i>not associated with ILS</i> )	llz
IO	Outer marker (ILS) ( <i>specify runway</i> )	ils om
IS	ILS Category I ( <i>specify runway</i> )	ils cat I
IT	ILS Category II ( <i>specify runway</i> )	ils cat II
IU	ILS Category III ( <i>specify runway</i> )	ils cat III
IW	Microwave landing system ( <i>specify runway</i> )	mls
IX	Locator, outer (ILS) ( <i>specify runway</i> )	ils lo
IY	Locator, middle (ILS) ( <i>specify runway</i> )	ils lm

## CNS

## GNSS services (G)

GA	GNSS airfield-specific operations ( <i>specify operation</i> )	gnss airfield
GW	GNSS area-wide operations ( <i>specify operation</i> )	gnss area

## CNS

## Terminal and en-route navigation facilities (N)

NA	All radio navigation facilities (except . . .)	all rdo nav fac
NB	Non-directional radio beacon	ndb
NC	DECCA	decca
ND	Distance measuring equipment	dme
NF	Fan marker	fan mkr
NL	Locator ( <i>specify identification</i> )	1
NM	VOR/DME	vor/dme
NN	TACAN	tacan
NO	OMEGA	omega
NT	VORTAC	vortac
NV	VOR	vor
NX	Direction-finding station ( <i>specify type and frequency</i> )	df

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
Navigation Warnings		
Airspace restrictions (R)		
RA	Airspace reservation ( <i>specify</i> )	airspace reservation
RD	Danger area ( <i>specify</i> )	. . d . .
RM	Military operating area	moa
RO	Overflying of . . . ( <i>specify</i> )	overflying
RP	Prohibited area ( <i>specify</i> )	. . p . .
RR	Restricted area	. . r . .
RT	Temporary restricted area ( <i>specify area</i> )	tempo restricted area
Navigation Warnings		
Warnings (W)		
WA	Air display	air display
WB	Aerobatics	aerobatics
WC	Captive balloon or kite	captive balloon/kite
WD	Demolition of explosives	demolition of explosives
WE	Exercises ( <i>specify</i> )	exer
WF	Air refuelling	air refuelling
WG	Glider flying	gld fly
WH	Blasting	blasting
WJ	Banner/target towing	banner/target towing
WL	Ascent of free balloon	ascent of free balloon
WM	Missile, gun or rocket firing	missile/gun/rocket/frng
WP	Parachute jumping exercise, paragliding or hang gliding	pje/paragliding/hang gliding
WR	Radioactive materials or toxic chemicals ( <i>specify</i> )	radioactive materials/toxic chemicals
WS	Burning or blowing gas	burning/blowing gas
WT	Mass movement of aircraft	mass mov of acft
WU	Unmanned aircraft	ua
WV	Formation flight	formation flt
WW	Significant volcanic activity	significant volcanic act
WY	Aerial survey	aerial survey
WZ	Model flying	model fly
Other Information (O)		
OA	Aeronautical information service	ais
OB	Obstacle ( <i>specify details</i> )	obst
OE	Aircraft entry requirements	acft entry rqmnts
OL	Obstacle lights on . . . ( <i>specify</i> )	obst lgt
OR	Rescue coordination centre	rcc

# THE NOTAM CODE — DECODE

## FOURTH AND FIFTH LETTERS

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
Availability (A)		
AC	Withdrawn for maintenance	withdrawn maint
AD	Available for daylight operation	avbl day ops
AF	Flight checked and found reliable	fltck okay
AG	Operating but ground checked only, awaiting flight check	opr but gnd ck only, awaiting fltck
AH	Hours of service are now . . . ( <i>specify</i> )	hr ser
AK	Resumed normal operation	okay
AL	Operative ( <i>or reoperative</i> ) subject to previously published limitations/conditions	opr subj previous cond
AM	Military operations only	mil ops only
AN	Available for night operation	avbl ngt ops
AO	Operational	opr
AP	Available, prior permission required	avbl, ppr
AR	Available on request	avbl o/r
AS	Unserviceable	u/s
AU	Not available ( <i>specify reason if appropriate</i> )	not avbl
AW	Completely withdrawn	withdrawn
AX	Previously promulgated shutdown has been cancelled	promulgated shutdown cnl
Changes (C)		
CA	Activated	act
CC	Completed	cmpl
CD	Deactivated	deactivated
CE	Erected	erected
CF	Operating frequency(ies) changed to	opr freq changed to
CG	Downgraded to	downgraded to
CH	Changed	changed
CI	Identification or radio call sign changed to	ident/rdo call sign changed to
CL	Realigned	realigned
CM	Displaced	displaced
CN	Cancelled	cnl
CO	Operating	opr
CP	Operating on reduced power	opr reduced pwr
CR	Temporarily replaced by	tempo rplcd by
CS	Installed	instl
CT	On test, do not use	on test, do not use



Code	Signification	Uniform abbreviated phraseology
Hazard Conditions (H)		
HA	Braking action is . . . 1) Poor 2) Medium/Poor 3) Medium 4) Medium/Good 5) Good	ba is...
HB	Friction coefficient is . . . <i>(specify friction measuring device used)</i>	friction coefficient is
HC	Covered by compacted snow to a depth of	cov compacted sn depth
HD	Covered by dry snow to a depth of	cov dry sn depth
HE	Covered by water to a depth of	cov water depth
HF	Totally free of snow and ice	free of sn and ice
HG	Grass cutting in progress	grass cutting inpr
HH	Hazard due to <i>(specify)</i>	hazard due
HI	Covered by ice	cov ice
HJ	Launch planned . . . <i>(specify balloon flight identification or project code name, launch site, planned period of launch(es) — date/time, expected climb direction, estimated time to pass 18 000 m (60 000 ft), or reaching cruise level if at or below 18 000 m (60 000 ft), together with estimated location)</i>	launch plan
HK	Bird migration in progress <i>(specify direction)</i>	bird migration inpr
HL	Snow clearance completed	sn clr cml
HM	Marked by	marked by
HN	Covered by wet snow or slush to a depth of	cov wet sn/slush depth
HO	Obscured by snow	obscured by sn
HP	Snow clearance in progress	sn clr inpr
HQ	Operation cancelled . . . <i>(specify balloon flight identification or project code name)</i>	opr cml
HR	Standing water	standing water
HS	Sanding in progress	sanding inpr
HT	Approach according to signal area only	apch according signal
HU	Launch in progress . . . <i>(specify balloon flight identification or project code name, launch site, date/time of launch(es), estimated time passing 18 000 m (60 000 ft), or reaching cruising level if at or below 18 000 m (60 000 ft), together with estimated location, estimated date/time of termination of the flight and planned location of ground contact, when applicable)</i>	launch inpr
HV	Work completed	work cml
HW	Work in progress	wip
HX	Concentration of birds	bird concentration
HY	Snow banks exist <i>(specify height)</i>	sn banks hgt
HZ	Covered by frozen ruts and ridges	cov frozen ruts and ridges

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
Limitations (L)		
LA	Operating on auxiliary power supply	opr aux pwr
LB	Reserved for aircraft based therein	reserved for acft based therein
LC	Closed	clsd
LD	Unsafe	unsafe
LE	Operating without auxiliary power supply	opr aux wo pwr
LF	Interference from	interference fm
LG	Operating without identification	opr wo ident
LH	Unserviceable for aircraft heavier than	u/s acft heavier than
LI	Closed to IFR operations	clsd ifr ops
LK	Operating as a fixed light	opr as f lgt
LL	Usable for length of . . . and width of . . .	usable len.../wid...
LN	Closed to all night operations	clsd to all ngt ops
LP	Prohibited to	prohibited to
LR	Aircraft restricted to runways and taxiways	acft restricted to rwy and twy
LS	Subject to interruption	subj intrp
LT	Limited to	ltd to
LV	Closed to VFR operations	clsd vfr ops
LW	Will take place	will take place
LX	Operating but caution advised due to	opr but ctn advised due to
Other (XX)		
XX	Plain language	

# THE NOTAM CODE — ENCODE

## SECOND AND THIRD LETTERS

<i>Signification</i>	<i>Code</i>	<i>Signification</i>	<i>Code</i>
AGA		Movement area	MA
Lighting facilities (L)		Parking area	MK
		Rapid exit taxiway ( <i>specify</i> )	MY
Aerodrome beacon	LB	Runway ( <i>specify runway</i> )	MR
All landing area lighting facilities	LR	Runway arresting gear ( <i>specify runway</i> )	MH
Approach lighting system ( <i>specify runway and type</i> )	LA	Runway turning bay ( <i>specify runway</i> )	MU
Category II components of approach lighting system ( <i>specify runway</i> )	LK	Stopbar ( <i>specify taxiway</i> )	MO
Helicopter approach path indicator	LU	Stopway ( <i>specify runway</i> )	MS
Heliport lighting	LW	Strip/shoulder ( <i>specify runway</i> )	MW
High intensity runway lights ( <i>specify runway</i> )	LH	Taxiing guidance system	MG
Landing direction indicator lights	LD	Taxiway(s) ( <i>specify</i> )	MX
Low intensity runway lights ( <i>specify runway</i> )	LL	Threshold ( <i>specify runway</i> )	MT
Medium intensity runway lights ( <i>specify runway</i> )	LM		
Pilot-controlled lighting	LG	AGA	
Precision approach path indicator ( <i>specify runway</i> )	LP	Facilities and services (F)	
Runway alignment indicator lights ( <i>specify runway</i> )	LJ		
Runway centre line lights ( <i>specify runway</i> )	LC	Aerodrome	FA
Runway edge lights ( <i>specify runway</i> )	LE	Aircraft de-icing ( <i>specify</i> )	FI
Runway end identifier lights ( <i>specify runway</i> )	LI	Ceiling measurement equipment	FC
Runway touchdown zone lights ( <i>specify runway</i> )	LZ	Customs/immigration	FZ
Sequenced flashing lights ( <i>specify runway</i> )	LF	Docking system ( <i>specify AGNIS, BOLDs, etc.</i> )	FD
Stopway lights ( <i>specify runway</i> )	LS	Firefighting and rescue	FF
Taxiway centre line lights ( <i>specify taxiway</i> )	LX	Fog dispersal system	FO
Taxiway edge lights ( <i>specify taxiway</i> )	LY	Friction measuring device ( <i>specify type</i> )	FB
Threshold lights ( <i>specify runway</i> )	LT	Fuel availability	FU
Visual approach slope indicator system ( <i>specify type and runway</i> )	LV	Ground movement control	FG
		Helicopter alighting area/platform	FH
AGA		Heliport	FP
Movement and landing area (M)		Landing direction indicator	FL
		Meteorological service ( <i>specify type</i> )	FM
Aircraft stands ( <i>specify</i> )	MP	Oils ( <i>specify type</i> )	FJ
Apron	MN	Oxygen ( <i>specify type</i> )	FE
Bearing strength ( <i>specify part of landing area or movement area</i> )	MB	Snow removal equipment	FS
Clearway ( <i>specify runway</i> )	MC	Transmissometer ( <i>specify runway and, where applicable, designator(s) of transmissometer(s)</i> )	FT
Daylight markings ( <i>specify threshold, centre line, etc.</i> )	MM	Wind direction indicator	FW
Declared distances ( <i>specify runway</i> )	MD		
		ATM	
		Airspace organization (A)	
		Aerodrome traffic zone	AZ
		Air defence identification zone	AD

<i>Signification</i>	<i>Code</i>	<i>Signification</i>	<i>Code</i>
Area navigation route	AN	Noise operating restrictions	PN
ATS route ( <i>specify</i> )	AR	Obstacle clearance altitude and height ( <i>specify procedure</i> )	PO
Control area	AE	Radio failure procedure	PR
Control zone	AC	Standard instrument arrival ( <i>specify route designator</i> )	PA
Flight information region	AF	Standard instrument departure ( <i>specify route designator</i> )	PD
Minimum altitude ( <i>specify en- route/crossing/safe</i> )	AA	Standard VFR arrival	PB
Minimum usable flight level	AL	Standard VFR departure	PE
Oceanic control area	AO	Transition altitude or transition level ( <i>specify</i> )	PT
Reporting point ( <i>specify name or coded designator</i> )	AP	VFR approach procedure	PK
Significant point	AX	CNS	
Terminal control area	AT	Communications and surveillance facilities (C)	
Upper advisory area	AV	Air/ground facility ( <i>specify service and frequency</i> )	CA
Upper control area	AH	Automatic dependent surveillance — broadcast ( <i>details</i> )	CB
Upper flight information region	AU	Automatic dependent surveillance — contract ( <i>details</i> )	CC
ATM		Controller-pilot data link communications ( <i>details</i> )	CD
Air traffic and VOLMET services (S)		En-route surveillance radar	CE
Aerodrome control tower	ST	Ground controlled approach system	CG
Aerodrome flight information service	SF	Precision approach radar ( <i>specify runway</i> )	CP
Approach control service	SP	Secondary surveillance radar	CS
Area control centre	SC	Selective calling system	CL
ATS reporting office	SB	Surface movement radar	CM
Automatic terminal information service	SA	Surveillance radar element of precision approach radar system ( <i>specify wavelength</i> )	CR
Flight information service	SE	Terminal area surveillance radar	CT
Flight service station	SS	CNS	
Flow control centre	SL	GNSS services (G)	
Oceanic area control centre	SO	GNSS airfield-specific operations ( <i>specify operation</i> )	GA
Upper advisory service ( <i>specify</i> )	SY	GNSS area-wide operations ( <i>specify operation</i> )	GW
Upper area control centre	SU		
VOLMET broadcast	SV		
ATM			
Air traffic procedures (P)			
ADIZ procedure	PZ		
Aerodrome operating minima ( <i>specify procedure and amended minimum</i> )	PM		
Contingency procedures	PC		
Flight plan processing, filing and related contingency	PL		
Flow control procedure	PF		
Holding procedure	PH		
Instrument approach procedure ( <i>specify type and runway</i> )	PI		
Minimum holding altitude ( <i>specify fix</i> )	PX		
Missed approach procedure ( <i>specify runway</i> )	PU		

<i>Signification</i>	<i>Code</i>	<i>Signification</i>	<i>Code</i>
CNS		Overflying of . . . ( <i>specify</i> )	RO
Instrument and microwave landing systems (I)		Prohibited area ( <i>specify</i> )	RP
		Restricted area	RR
DME associated with ILS	ID	Temporary restricted area ( <i>specify area</i> )	RT
Glide path (ILS) ( <i>specify runway</i> )	IG		
ILS Category I ( <i>specify runway</i> )	IS	Navigation Warnings	
ILS Category II ( <i>specify runway</i> )	IT	Warnings (W)	
ILS Category III ( <i>specify runway</i> )	IU		
Inner marker (ILS) ( <i>specify runway</i> )	II	Aerial survey	WY
Instrument landing system ( <i>specify runway</i> )	IC	Aerobatics	WB
Localizer (ILS) ( <i>specify runway</i> )	IL	Air display	WA
Localizer ( <i>not associated with ILS</i> )	IN	Air refuelling	WF
Locator, middle (ILS) ( <i>specify runway</i> )	IY	Ascent of free balloon	WL
Locator, outer (ILS) ( <i>specify runway</i> )	IX	Banner/target towing	WJ
Microwave landing system ( <i>specify runway</i> )	IW	Blasting	WH
Middle marker (ILS) ( <i>specify runway</i> )	IM	Burning or blowing gas	WS
Outer marker (ILS) ( <i>specify runway</i> )	IO	Captive balloon or kite	WC
		Demolition of explosives	WD
CNS		Exercises ( <i>specify</i> )	WE
Terminal and en-route navigation facilities (N)		Formation flight	WV
		Glider flying	WG
All radio navigation facilities (except . . .)	NA	Mass movement of aircraft	WT
DECCA	NC	Missile, gun or rocket firing	WM
Direction-finding station ( <i>specify type and frequency</i> )	NX	Model flying	WZ
Distance measuring equipment	ND	Parachute jumping exercise, paragliding or hang gliding	WP
Fan marker	NF	Radioactive materials or toxic chemicals ( <i>specify</i> )	WR
Locator ( <i>specify identification</i> )	NL	Significant volcanic activity	WW
Non-directional radio beacon	NB	Unmanned aircraft	WU
OMEGA	NO		
VOR	NV	Other Information (O)	
VOR/DME	NM		
VORTAC	NT	Aeronautical information service	OA
TACAN	NN	Aircraft entry requirements	OE
		Obstacle ( <i>specify details</i> )	OB
Navigation Warnings		Obstacle lights on . . . ( <i>specify</i> )	OL
Airspace restrictions (R)		Rescue coordination centre	OR
Airspace reservation ( <i>specify</i> )	RA		
Danger area ( <i>specify</i> )	RD		
Military operating area	RM		

## THE NOTAM CODE — ENCODE

### FOURTH AND FIFTH LETTERS

<i>Signification</i>	<i>Code</i>	<i>Signification</i>	<i>Code</i>
Availability (A)		Hazard Conditions (H)	
Available for daylight operation	AD	Approach according to signal area only	HT
Available for night operation	AN	Bird migration in progress <i>(specify direction)</i>	HK
Available on request	AR	Braking action is . . .	HA
Available, prior permission required	AP	1) Poor	
Completely withdrawn	AW	2) Medium/Poor	
Flight checked and found reliable	AF	3) Medium	
Hours of service are now . . . <i>(specify)</i>	AH	4) Medium/Good	
Military operations only	AM	5) Good	
Not available <i>(specify reason if appropriate)</i>	AU	Concentration of birds	HX
Operating but ground checked only, awaiting flight check	AG	Covered by compacted snow to a depth of	HC
Operational	AO	Covered by dry snow to a depth of	HD
Operative <i>(or reoperative)</i> subject to previously published limitations/conditions	AL	Covered by frozen ruts and ridges	HZ
Previously promulgated shutdown has been cancelled	AX	Covered by ice	HI
Resumed normal operation	AK	Covered by water to a depth of	HE
Unserviceable	AS	Covered by wet snow or slush to a depth of	HN
Withdrawn for maintenance	AC	Friction coefficient is . . . <i>(specify friction measuring device used)</i>	HB
Changes (C)		Grass cutting in progress	HG
Activated	CA	Hazard due to <i>(specify)</i>	HH
Cancelled	CN	Launch in progress . . . <i>(specify balloon flight identification or project code name, launch site, date/time of launch(es), estimated time passing 18 000 m (60 000 ft), or reaching cruising level if at or below 18 000 m (60 000 ft), together with estimated location, estimated date/time of termination of the flight and planned location of ground contact, when applicable)</i>	HU
Changed	CH	Launch planned . . . <i>(specify balloon flight identification or project code name, launch site, planned period of launch(es) — date/time, expected climb direction, estimated time to pass 18 000 m (60 000 ft), or reaching cruising level if at or below 18 000 m (60 000 ft), together with estimated location)</i>	HJ
Completed	CC	Marked by	HM
Deactivated	CD	Obscured by snow	HO
Displaced	CM	Operation cancelled . . . <i>(specify balloon flight identification or project code name)</i>	HQ
Downgraded to	CG	Sanding in progress	HS
Erected	CE		
Identification or radio call sign changed to	CI		
Installed	CS		
On test, do not use	CT		
Operating	CO		
Operating frequency(ies) changed to	CF		
Operating on reduced power	CP		
Realigned	CL		
Temporarily replaced by	CR		

<i>Signification</i>	<i>Code</i>	<i>Signification</i>	<i>Code</i>
Snow banks exist ( <i>specify height</i> )	HY	Operating as a fixed light	LK
Snow clearance completed	HL	Operating but caution advised due to	LX
Snow clearance in progress	HP	Operating on auxiliary power supply	LA
Standing water	HR	Operating without auxiliary power supply	LE
Totally free of snow and ice	HF	Operating without identification	LG
Work completed	HV	Prohibited to	LP
Work in progress	HW	Reserved for aircraft based therein	LB
		Subject to interruption	LS
Limitations (L)		Unsafe	LD
		Unserviceable for aircraft heavier than	LH
Aircraft restricted to runways and taxiways	LR	Usable for length of . . . and width of . . .	LL
Closed	LC	Will take place	LW
Closed to all night operations	LN		
Closed to IFR operations	LI	Other (XX)	
Closed to VFR operations	LV		
Interference from	LF	Plain language	XX
Limited to	LT		

— END —







